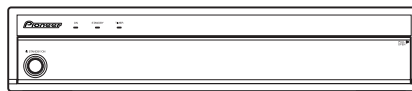


Service Manual



PDP-R06U

ORDER NO.
ARP3279

MEDIA RECEIVER

PDP-R06U PRO-R06U

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-R06U	KUCXJ	AC 120V	
PRO-R06U	KUCXJ	AC 120V	

This service manual should be used together with the following manual(s).

Model No.	Order No.	Remarks
PDP-R06U, PRO-R06U	ARP3280	SCHEMATIC DIAGRAM, PCB CONNECTION DIAGRAM



For details, refer to "Important Check Points for good servicing".

SAFETY INFORMATION



This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

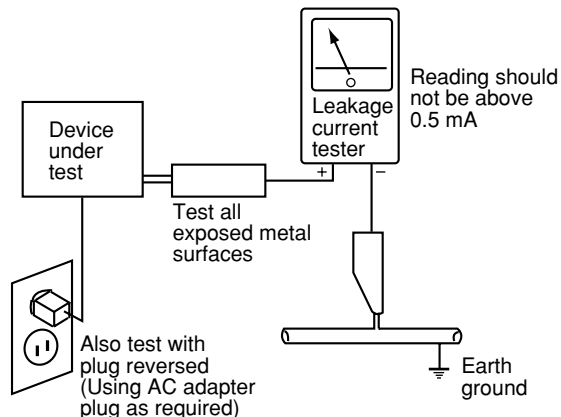
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol. Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification (addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris. Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs. In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages. If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries. Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification. Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance. Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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1. SPECIFICATIONS

Item			Media Receiver, Model: PDP-R06U
Reception System (Digital)			ATSC Digital TV system
	Circuit type		8VSB/64QAM/256QAM/QPSK demodulation
	Tuner	VHF/UHF	VHF Ch. 2-13 UHF Ch. 14-69
		CATV	Ch. 2-135
	Audio format		Dolby Digital
Reception System (Analog)			American TV standard NTSC system
	Circuit type		Video signal detection PLL full synchronous detection, PLL digital synthesizer system
	Tuner	VHF/UHF	VHF Ch. 2-13 UHF Ch. 14-69
		CATV	ANT/CABLE A IN Ch. 1-135 ANT B IN Ch. 1-125
	Audio multiplex		BTSC system
Terminals	Rear	ANT/CABLE A IN	75 Ω UNBAL, F Type for DTV/VHF/UHF/CATV in
		ANT B IN	75 Ω UNBAL, F Type for VHF/UHF/CATV in Loop out
		i.LINK (TS)	S400 (2)
		INPUT 1	COMPONENT VIDEO in, S-VIDEO in, VIDEO in, AUDIO in, HDMI in*
		INPUT 2	S-VIDEO in, VIDEO in, AUDIO in
		INPUT 3	COMPONENT VIDEO in, AUDIO in, HDMI in *
		MONITOR OUT	VIDEO out, AUDIO out
		Digital Audio Output	Optical (1)
		G-LINK	1
		CONTROL IN	1
		CONTROL OUT	1
		SUB WOOFER OUTPUT	Variable
		Cable CARD	Point of Deployment
	Front	INPUT 4	COMPONENT VIDEO in, S-VIDEO in, VIDEO in, AUDIO in (Audio input is shared with PC INPUT.)
		PC	Analog RGB in, AUDIO in
On-screen display languages			English/French/Spanish
Power Requirement			120 V AC, 60 Hz, 35 W (26 W Standby)
Dimensions			420 (W) × 90 (H) × 299 (D) mm (16 9/16 (W) × 3 9/16 (H) × 11 13/16 (D) inches)
Weight			4.5 kg (9.9 lbs.)

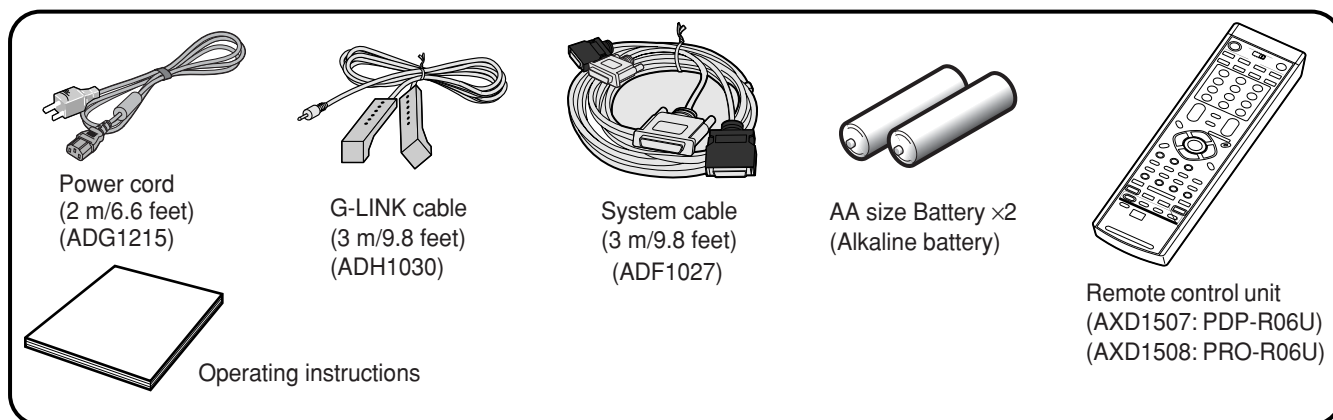
* : This conforms to HDMI1.1 and HDCP1.1.

HDMI (High Definition Multimedia Interface) is a digital interface that handles both video and audio using a single cable.

HDCP (High-bandwidth Digital Content Protection) is a technology used to protect copyrighted digital contents that use the Digital Visual Interface (DVI).

- Design and specifications are subject to change without notice.

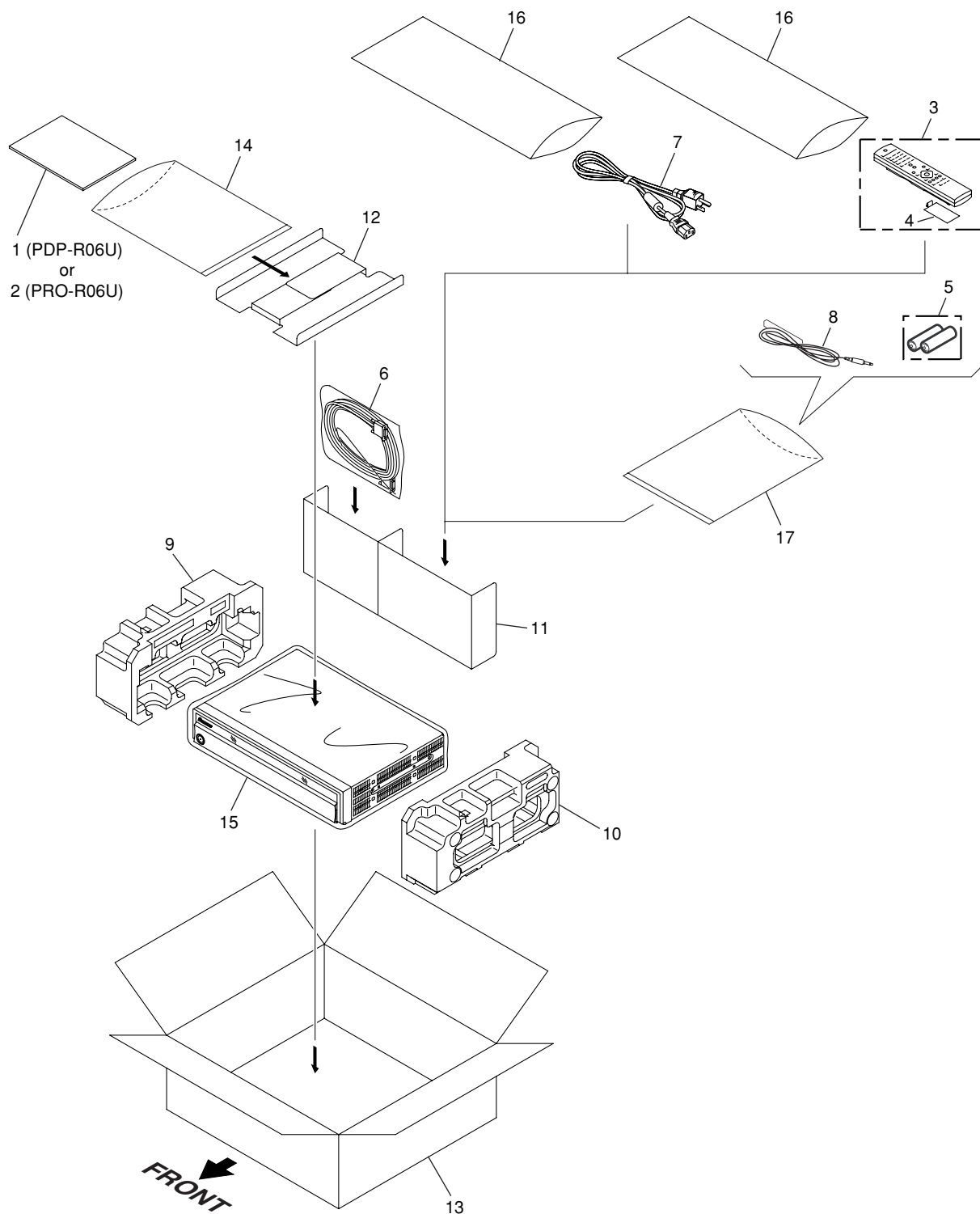
Accessories



2. EXPLODED VIEWS AND PARTS LIST

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
● The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
● Screws adjacent to ▼ mark on product are used for disassembly.
● For the applying amount of lubricants or glue, follow the instructions in this manual.
(In the case of no amount instructions, apply as you think it appropriate.)

2.1 PACKING SECTION



PDP-R06U

(1) PACKING SECTION PARTS LIST

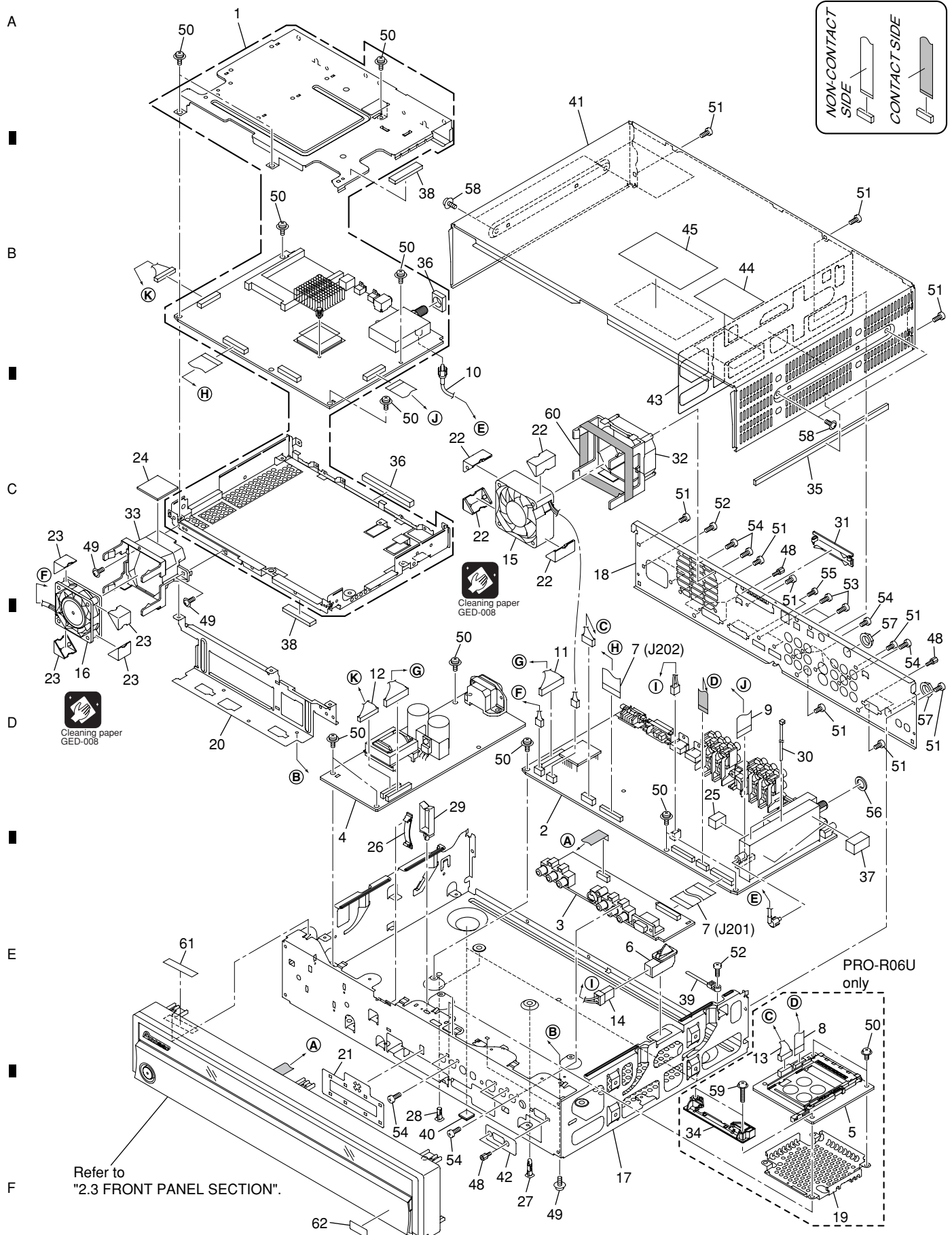
Mark	No.	Description	Part No.
	1	Operating Instructions (English, French, Spanish)	See Contrast table (2)
	2	Operating Instructions (English)	See Contrast table (2)
	3	Remote Control Unit	See Contrast table (2)
	4	Battery Cover	AZA7424
NSP	5	Dry Cell Battery (R6P, AA)	VEM1023
	6	System Cable (3m)	ADF1027
⚠	7	Power Cord	ADG1215
	8	G-LINK Cable (3m)	ADH1030
	9	Pad L	AHA2447
	10	Pad R	AHA2448
	11	Accessory Carton M	AHD3423
	12	Manual Case	AHD3428
	13	Carton	See Contrast table (2)
NSP	14	Catalogue Bag	AHG1340
	15	Laminate Sheet	AHG1350
	16	Air Cap Bag	AHG1351
NSP	17	Catalogue Bag	AHG1374

(2) CONTRAST TABLE

PDP-R06U/KUCXJ and PRO-R06U/KUCXJ are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-R06U/KUCXJ	PRO-R06U/KUCXJ
	1	Operating Instructions (English, French, Spanish)	ARE1399	Not used
	2	Operating Instructions (English)	Not used	ARB1567
	3	Remote Control Unit	AXD1507	AXD1508
	13	Carton U	AHD3448	Not used
	13	Carton UE	Not used	AHD3447

2.2 EXTERIOR SECTION





(1) EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
⚠ 1	MR DTB Assy	AWE1305	46	Label	See Contrast table (2)
⚠ 2	MR MAIN Assy	See Contrast table (2)	47	•••••	A
3	FRONT Assy	See Contrast table (2)	48	Hex Head Screw	BBA1051
⚠ 4	POWER SUPPLY Unit	AXY1113	49	Screw	ABZ30P060FTC
5	PC CARD Module	See Contrast table (2)	50	Screw	BBB30P080FTC
6	Power Switch (S1)	ASG1089	51	Screw	BBZ30P060FTB
7	Flexible Cable (J201)(J202)	ADD1311	52	Screw	BBZ30P100FTC
8	Flexible Cable (J206)	See Contrast table (2)	53	Screw	BMZ30P060FTC
9	Flexible Cable (J205)	ADD1317	54	Screw	BPZ30P080FTB
10	Antenna Cable (0.19m)	ADE1194	55	Screw	PMZ26P060FTB
11	16P Housing Wire (J101)	ADX3140	56	Washer	ABE1080
12	12P Housing Wire (J102)	ADX3141	57	Nut	BBN1005
13	6P Housing Wire (J103)	See Contrast table (2)	58	Screw	See Contrast table (2)
14	3P Housing Wire (J106)	ADX3143	59	Screw	See Contrast table (2)
⚠ 15	Fan Motor (60 x 25L)	AXM1047	60	TERAOKA No.570F 16mm(W)	GYH1001
⚠ 16	Fan Motor (52 x 15L)	AXM1051	61	SW Caution	See Contrast table (2)
17	Base Chassis	ANA1872	62	TV Guide Label	AAX3210
18	Terminal Panel	See Contrast table (2)			
⚠ 19	PC Shield	See Contrast table (2)			
20	Frame B	ANG2781			
⚠ 21	Shield Plate	ANG2838			C
22	Floating Rubber 60	AEB1410			
23	Floating Rubber 50	AEB1418			
24	Cushion Rubber	AEB1428			
25	Cushion Rubber	AEB1433			
26	Flat Clamp	AEC1858			
27	Circuit Board Spacer	AEC1969			
28	Circuit Board Spacer	AEC2028			
29	Re-used Wire Saddle	AEC2038			
30	Cable Tie	AEC2078			D
31	Rear Cover	AMR3425			
32	Fan Holder 60	AMR3451			
33	Fan Holder 50	AMR3456			
34	PC Guide	See Contrast table (2)			
⚠ 35	Gasket S	ANK1784			
36	Gasket	ANK1788			
37	Gasket	ANK1791			
38	Gasket	ANK1793			E
39	Jumper Band	BEC1228			
40	Rubber Foot	VEB1349			
41	Metal Bonnet	See Contrast table (2)			
42	Cover Sheet	See Contrast table (2)			
43	Side Cover Sheet	See Contrast table (2)			
44	Caution Label	See Contrast table (2)			
45	Caution Label	See Contrast table (2)			

(2) CONTRAST TABLE

PDP-R06U/KUCXJ and PRO-R06U/KUCXJ are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-R06U/KUCXJ	PRO-R06U/KUCXJ
A		2 MR MAIN Assy	AWV2225	AWV2223
		3 FRONT Assy	AWW1046	AWW1044
		5 PC CARD Module	Not used	AXY1073
		8 Flexible Cable (J206)	Not used	ADD1313
		13 6P Housing Wire (J103)	Not used	ADX3142
B		18 Terminal Panel U	ANC2383	Not used
		18 Terminal Panel UE	Not used	ANC2376
		19 PC Shield	Not used	ANG2578
		34 PC Guide	Not used	AMR3468
		41 Metal Bonnet	ANE1653	ANE1652
		42 Cover Sheet	Not used	AAK2850
		43 Side Cover Sheet	Not used	AAK2851
		44 Caution Label (U)	AAX3282	Not used
		44 Caution Label (UE)	Not used	AAX3279
		45 Caution Label	Not used	AAX3239
		46 Label	Not used	AAX3247
		58 Screw	ABZ30P060FTC	ABZ30P060FTB
		59 Screw	Not used	ABZ30P180FTC
		61 Power SW Caution U	AAX3249	Not used
		61 Power SW Caution UE	Not used	AAX3280

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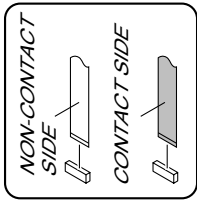
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PDP-R06U

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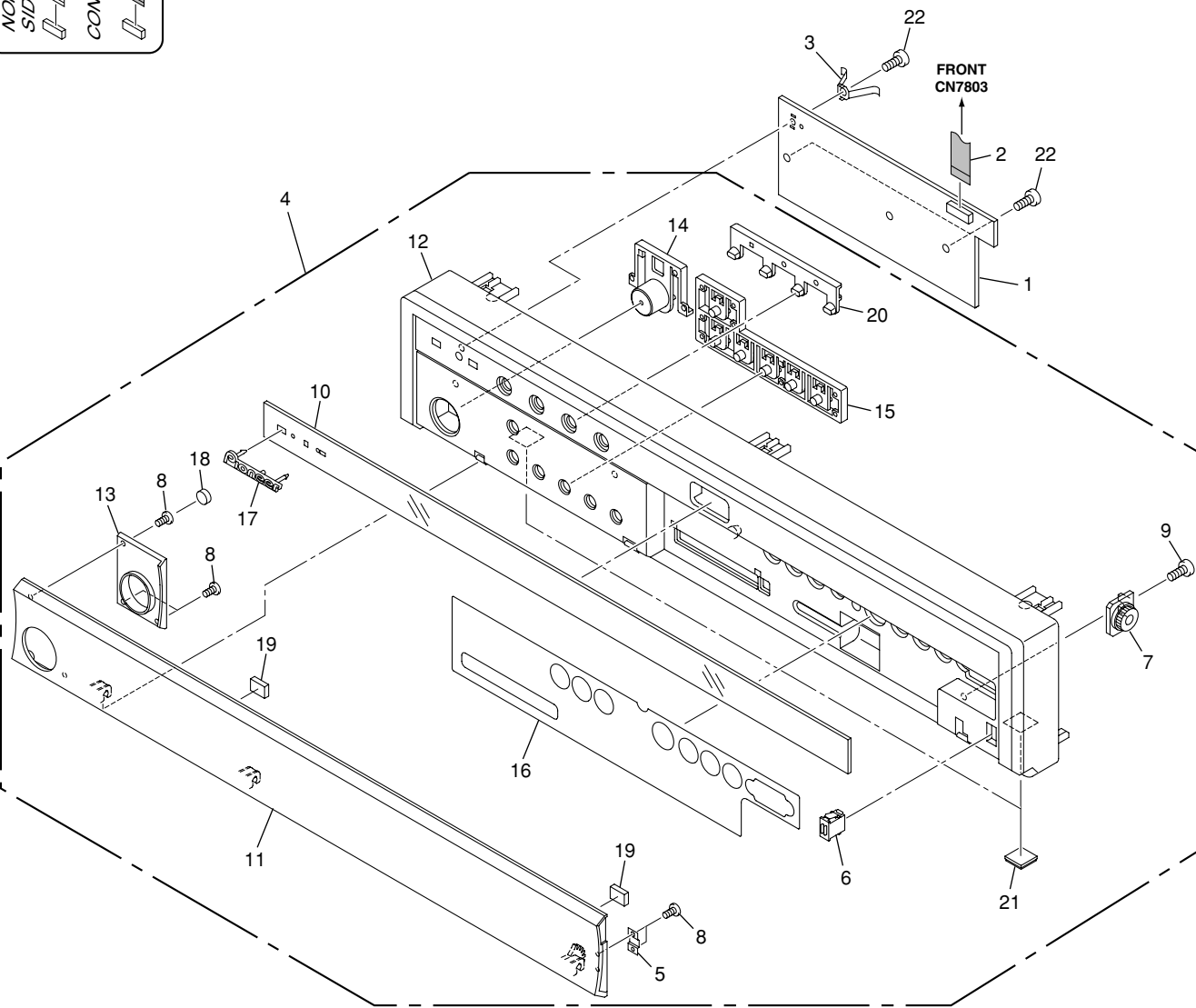
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(1) FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	LED Assy	AWW1045
	2	Flexible Cable (J207)	ADD1314
⚠	3	Earth Metal	BNG1336
	4	Front Panel Assy	See Contrast table (2)
	5	Magnet Catcher	See Contrast table (2)
	6	Magnet Holder Assy	AEC1077
	7	Gear Damper	AXA1019
	8	Screw (2 x 3.5)	See Contrast table (2)
	9	Screw	BPZ30P080FTB
	10	Indicator Panel	See Contrast table (2)
	11	Door	See Contrast table (2)
	12	Front Panel	See Contrast table (2)
	13	Escutcheon Ring	See Contrast table (2)
NSP	14	Power Button	See Contrast table (2)
NSP	15	Operation Button	AAD4140
	16	Sealing Sheet	See Contrast table (2)
	17	Pioneer Name Plate	See Contrast table (2)
	18	Door Cushion	See Contrast table (2)
	19	Door Cushion S	See Contrast table (2)
NSP	20	LED Lens	AMR3452
	21	Rubber Foot	VEB1349
	22	Screw	BPZ30P080FTB

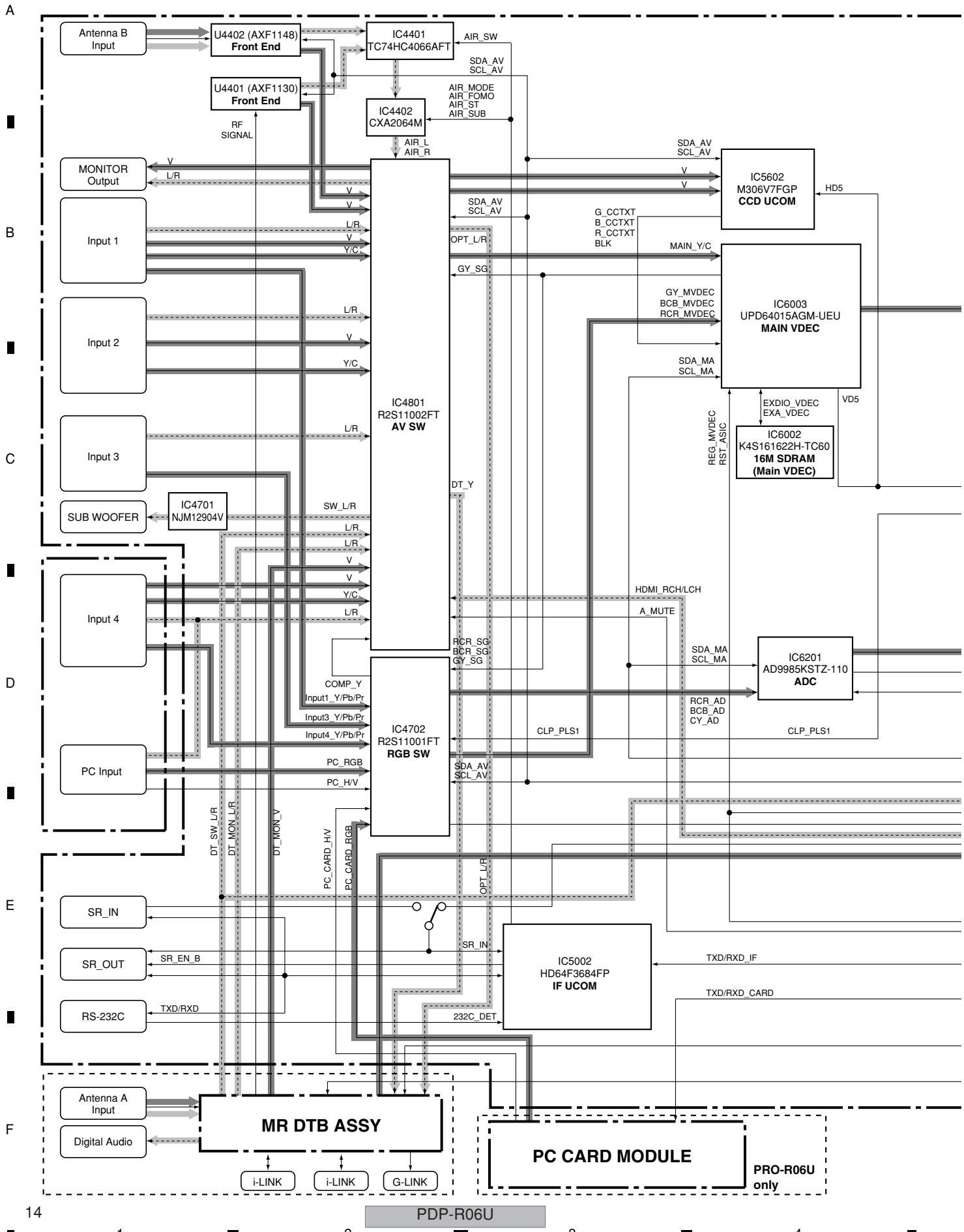
(2) CONTRAST TABLE

PDP-R06U/KUCXJ and PRO-R06U/KUCXJ are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-R06U/KUCXJ	PRO-R06U/KUCXJ
	4	Front Panel Assy U	AXG1036	Not used
	4	Front Panel Assy UE	Not used	AXG1031
	5	Magnet Catcher	ANG2820	ANG2821
	8	Screw (2 x 3.5)	ABA1329	ABA1330
	10	Indicator Panel (U)	AAK2847	Not used
	10	Indicator Panel (UE)	Not used	AAK2842
	11	Door (U)	AAN1484	Not used
	11	Door (UE)	Not used	AAN1480
	12	Front Panel (U)	AMB2872	Not used
	12	Front Panel (UE)	Not used	AMB2864
	13	Escutcheon Ring	AAD4134	Not used
	13	Escutcheon Ring (UE)	Not used	AAD4138
NSP	14	Power Button	AAD4135	Not used
NSP	14	Power Button (UE)	Not used	AAD4141
	16	Sealing Sheet (U)	AAL2674	Not used
	16	Sealing Sheet UE	Not used	AAL2666
	17	Pioneer Name Plate	AAM1107	VAM1109
	18	Door Cushion	AEB1412	Not used
	18	Door Cushion (UE)	Not used	AEB1419
	19	Door Cushion S	AEB1425	Not used
	19	Door Cushion S (UE)	Not used	AEB1426

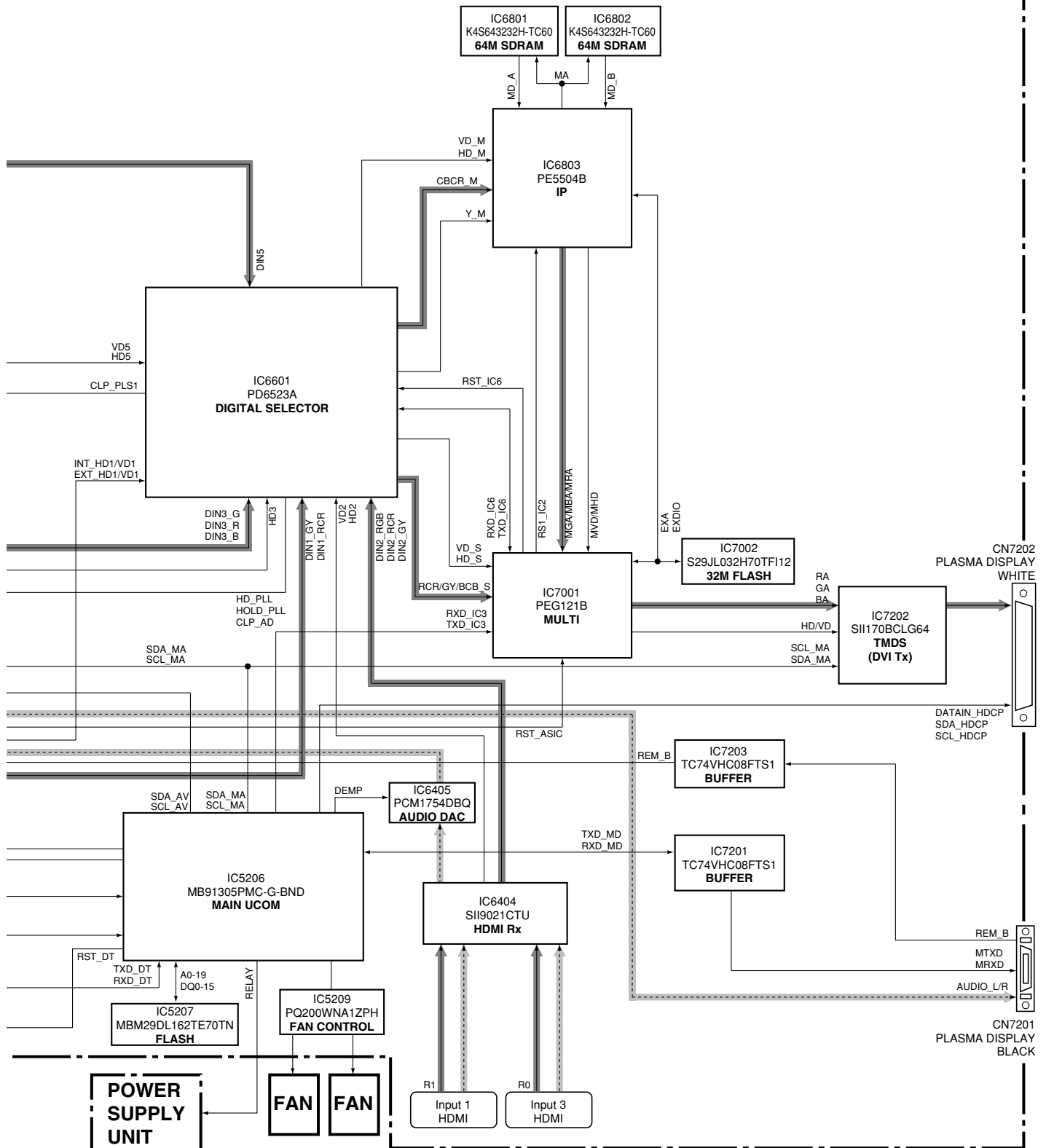
3. BLOCK DIAGRAM

3.1 OVERALL BLOCK DIAGRAM



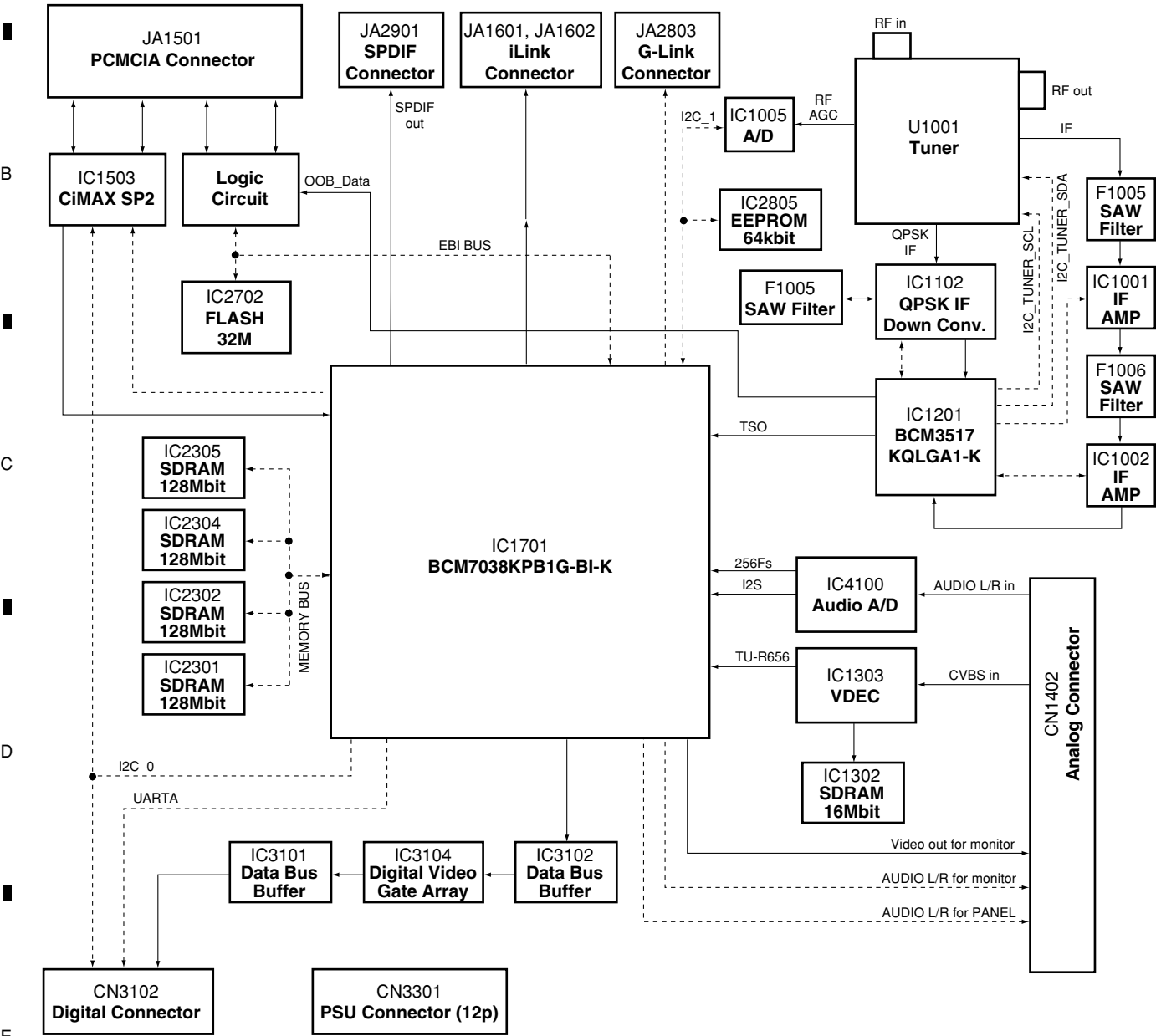
➡ : Video Signal Route
➡ : Audio Signal Route

MR MAIN ASSY



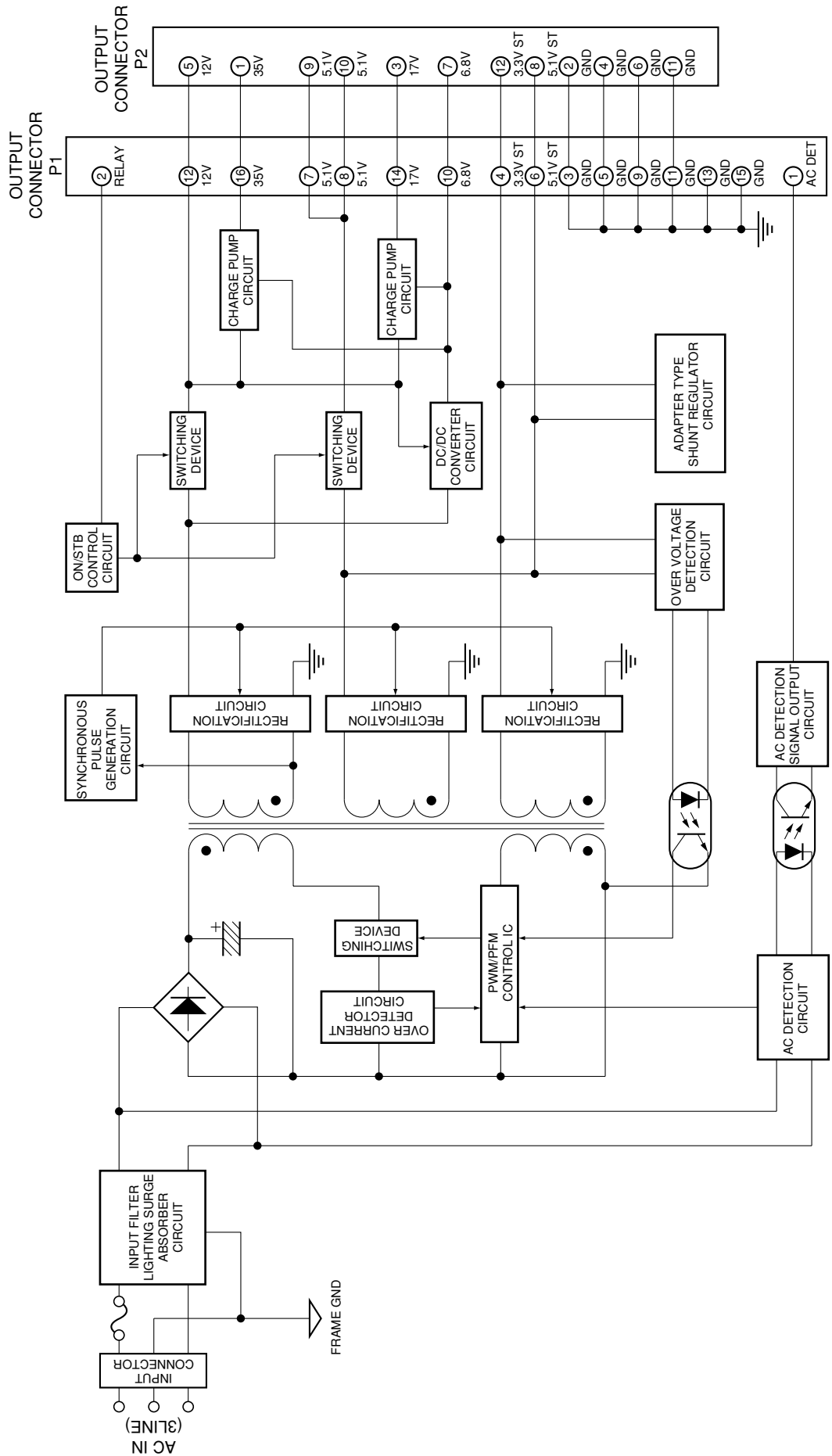
3.2 MR DTB ASSY

MR DTB ASSY

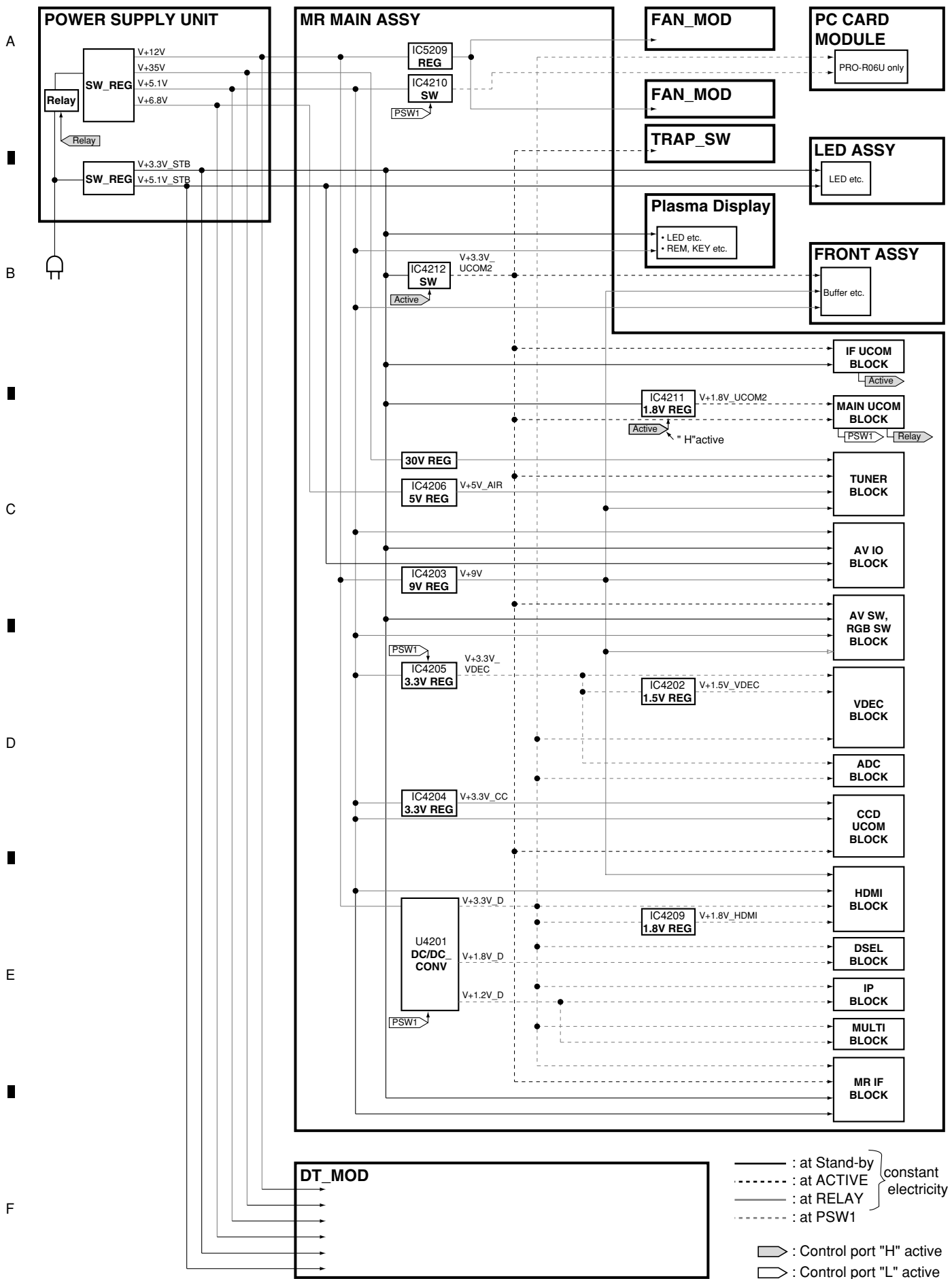


3.3 POWER SUPPLY UNIT

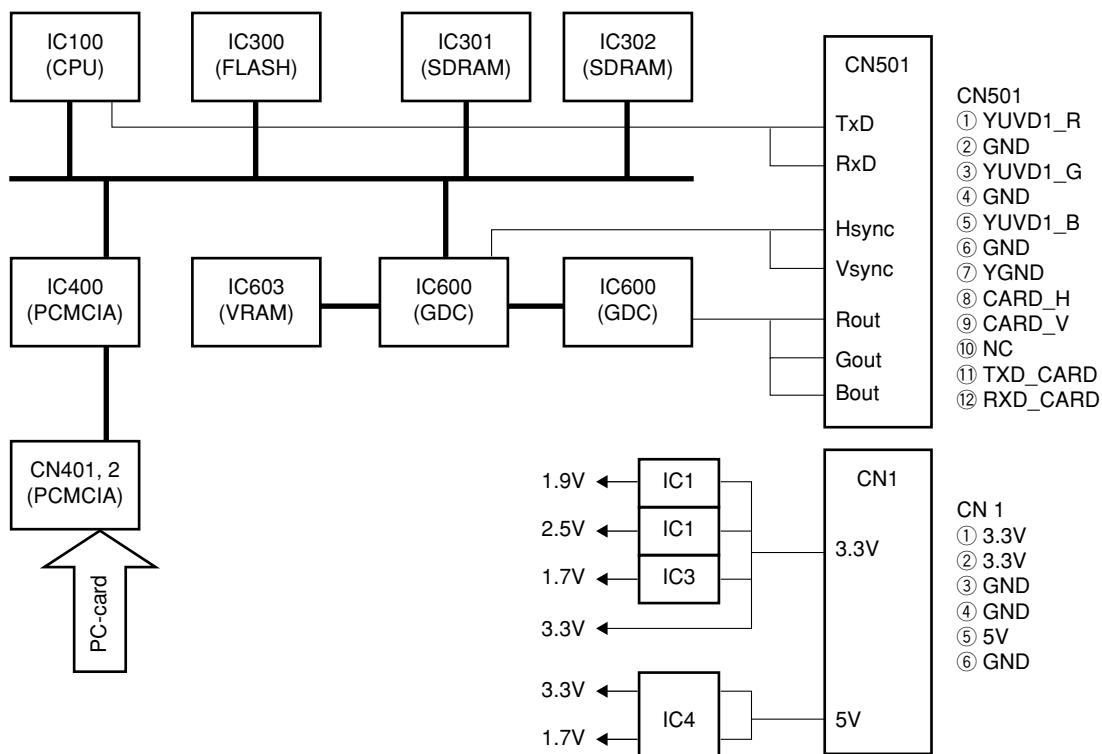
POWER SUPPLY UNIT



3.4 POWER SUPPLY SIGNAL ROUTE



PC CARD MODULE



3.6 VOLTAGES

FRONT ASSY				MR MAIN ASSY			
CN7804 (AKM1236)		Voltage (V)		CN4001 (AKM1236)			
No.	Pin Name			Pin Name	No.		
1	V+3_3V_STB	3.4		V+3_3V_STB	50		
2	LED_ON	0		LED_ON	49		
3	LED_OFF	3.4		LED_OFF	48		
4	GND	0		GND	47		
5	V+5_1V_STB	5.1		V+5_1V_STB	46		
6	LED_FCT	3.4		LED_FCT	45		
7	KEY_AD1	3.4		KEY_AD1	44		
8	KEY_AD2	3.4		KEY_AD2	43		
9	GND	0		GND	42		
10	GND	0		GND	41		
11	GND	0		GND	40		
12	GND	0		GND	39		
13	PC_V	0		PC_V	38		
14	GND	0		GND	37		
15	PC_H	0		PC_H	36		
16	GND	0		GND	35		
17	PC_G	2.5		PC_G	34		
18	GND	0		GND	33		
19	PC_B	2.5		PC_B	32		
20	GND	0		GND	31		
21	PC_R	2.5		PC_R	30		
22	GND	0		GND	29		
23	GND	0		GND	28		
24	INPUT4_PLUG	0		INPUT4_PLUG	27		
25	INPUT4_Y	2.5		INPUT4_Y	26		
26	GND	0		GND	25		
27	GND	0		GND	24		
28	INPUT4_PB	2.5		INPUT4_PB	23		
29	GND	0		GND	22		
30	GND	0		GND	21		
31	INPUT4_PR	2.5		INPUT4_PR	20		
32	GND	0		GND	19		
33	GND	0		GND	18		
34	INPUT4_Y	2.5		INPUT4_Y	17		
35	GND	0		GND	16		
36	INPUT4_C	2.2		INPUT4_C	15		
37	GND	0		GND	14		
38	INPUT4_SPLUG	5.0		INPUT4_SPLUG	13		
39	INPUT4_S2	0		INPUT4_S2	12		
40	GND	0		GND	11		
41	INPUT4_V	2.5		INPUT4_V	10		
42	GND	0		GND	9		
43	INPUT4_L	4.5		INPUT4_L	8		
44	GND	0		GND	7		
45	INPUT4_R	4.5		INPUT4_R	6		
46	GND	0		GND	5		
47	WE_ROM	0		WE_ROM	4		
48	V+3_3V_UCOM	3.4		V+3_3V_UCOM	3		
49	V+5V_A	5.0		V+5V_A	2		
50	V+9V_A	9.0		V+9V_A	1		

FRONT ASSY				LED ASSY			
CN7803 (AKM1233)		Voltage (V)		CN8001 (CKS3826)			
No.	Pin Name			Pin Name	No.		
1	GND	0		GND	12		
2	GND	0		GND	11		
3	GND	0		GND	10		
4	GND	0		GND	9		
5	KEY_AD2	3.4		KEY_AD2	8		
6	KEY_AD1	3.4		KEY_AD1	7		
7	LED_REC	3.4		LED_REC	6		
8	V+5_1V_STB	5.1		V+5_1V_STB	5		
9	LED_MDM	0		LED_MDM	4		
10	LED_OFF	3.4		LED_OFF	3		
11	LED_ON	0		LED_ON	2		
12	V+3_3V_STB	3.4		V+3_3V_STB	1		

FAN				MR MAIN ASSY			
		Voltage (V)		CN4007 (AKM1274)			
No.	Pin Name			Pin Name	No.		
—	—	7.0		FAN_12V	1		
—	—	0		FAN_NG2	2		
—	—	0		GND	3		

FAN				MR MAIN ASSY			
		Voltage (V)		CN4009 (AKM1274)			
No.	Pin Name			Pin Name	No.		
—	—	7.0		FAN_12V	1		
—	—	0		FAN_NG1	2		
—	—	0		GND	3		

TRAP-SW				MR MAIN ASSY			
		Voltage (V)		CN4015 (AKM1213)			
No.	Pin Name			Pin Name	No.		
—	—	3.4		TRAP_SW	1		
—	—	—		—	2		
—	—	3.4		V+3_3V_UCOM2	3		

PC CARD MODULE				MR MAIN ASSY			
CN501 (HFW12S-2STEI)		Voltage (V)		CN4003 (AKM1233)			
No.	Pin Name			Pin Name	No.		
1	PC_CARD_R	0		PC_CARD_R	12		
2	GND	0		GND	11		
3	PC_CARD_G	0		PC_CARD_G	10		
4	GND	0		GND	9		
5	PC_CARD_B	0		PC_CARD_B	8		
6	GND	0		GND	7		
7	GND	0		GND	6		
8	PC_CARD_H	3.3		PC_CARD_H	5		
9	PC_CARD_V	3.3		PC_CARD_V	4		
10	NC	0		NC	3		
11	TXD_CARD	3.3		TXD_CARD	2		
12	RXD_CARD	3.3		RXD_CARD	1		

POWER SUPPLY UNIT				MR MAIN ASSY			
CN101 (KM200NA16)		Voltage (V)		CN4006 (KM200NA16)			
No.	Pin Name			Pin Name	No.		
16	V+35V	36.0		V+35V	16		
15	GND	0		GND	15		
14	V+17V	19.0		V+17V	14		
13	GND	0		GND	13		
12	V+12V	12.3		V+12V	12		
11	GND	0		GND	11		
10	V+6_8V	6.6		V+6_8V	10		
9	GND	0		GND	9		
8	V+5_1V	5.1		V+5_1V	8		
7	V+5_1V	5.1		V+5_1V	7		
6	V+5_1V_STB	5.1		V+5_1V_STB	6		
5	GND	0		GND	5		
4	V+3_3V_STB	3.4		V+3_3V_STB	4		
3	GND	0		GND	3		
2	RELAY	3.4		RELAY	2		
1	AC_DET	3.4		AC_DET	1		

POWER SUPPLY UNIT				MR DTB ASSY			
CN102 (KM200NA12)		Voltage (V)		CN3301 (AKM1298)			
No.	Pin Name			Pin Name	No.		
1	V+35V	36.0		V+35V	1		
2	GND	0		GND	2		
3	V+17V	19.0		V+17V	3		
4	GND	0		GND	4		
5	V+12V	12.3		V+12V	5		
6	GND	0		GND	6		
7	V+6_5V	6.6		V+6_5V	7		
8	V+5_1V_STB	5.1		V+5_1V_STB	8		
9	V+5_1V	5.1		V+5_1V	9		
10	V+5_1V	5.1		V+5_1V	10		
11	GND	0		GND	11		
12	V+3_3V_STB	3.4		V+3_3V_STB	12		

PC CARD MODULE				MR MAIN ASSY			
CN1 (B8B-PH-SM3)		Voltage (V)		CN4002 (AKM1277)			
No.	Pin Name			Pin Name	No.		
1	V+3V_CARD	3.3		V+3V_CARD	1		
2	V+3V_CARD	3.3		V+3V_CARD	2		
3	GND	0		GND	3		
4	GND	0		GND	4		
5	V+5V_CARD	5.1		V+5V_CARD	5		
6	GND	0		GND	6		

MR DTB ASSY

MR MAIN ASSY

CN1402 (AKM1217)		Voltage (V)	CN4005 (AKM1303)	
No.	Pin Name		Pin Name	No.
1	GND	0	GND	1
2	GND	0	GND	2
3	DT_MON_R	4.8	DT_MON_R	3
4	GND	0	GND	4
5	DT_MON_L	4.8	DT_MON_L	5
6	GND	0	GND	6
7	DT_SP_R	4.8	DT_SP_R	7
8	GND	0	GND	8
9	DT_SP_L	4.8	DT_SP_L	9
10	GND	0	GND	10
11	OPT_R	0	OPT_R	11
12	GND	0	GND	12
13	OPT_L	0	OPT_L	13
14	GND	0	GND	14
15	NOT_USE	0	NOT_USE	15
16	GND	0	GND	16
17	GND	0	GND	17
18	NOT_USE	0	NOT_USE	18
19	GND	0	GND	19
20	GND	0	GND	20
21	NOT_USE	0	NOT_USE	21
22	GND	0	GND	22
23	GND	0	GND	23
24	DT_Y	2.2	DT_Y	24
25	GND	0	GND	25
26	GND	0	GND	26
27	DT_MON_V	2.9	DT_MON_V	27
28	GND	0	GND	28
29	GND	0	GND	29
30	NOT_USE	0	NOT_USE	30
31	GND	0	GND	31
32	GND	0	GND	32
33	TEMP3	0	TEMP3	33
34	GND	0	GND	34
35	GND	0	GND	35
36	LED_FCT	3.4	LED_FCT	36
37	RST3	0	RST3	37
38	RST_DT	3.4	RST_DT	38
39	DT_DET	0	DT_DET	39
40	GND	0	GND	40

MR DTB ASSY

MR MAIN ASSY

CN3102 (AKM1236)		Voltage (V)	CN4004 (AKM1201)	
No.	Pin Name		Pin Name	No.
1	GND	0	GND	1
2	TXD_DT	3.4	TXD_DT	2
3	RXD_DT	3.4	RXD_DT	3
4	GND	0	GND	4
5	DT_FNC	0	DT_FNC	5
6	GND	0	GND	6
7	NC		NC	7
8	NC		NC	8
9	NC		NC	9
10	NC		NC	10
11	NC		NC	11
12	NC		NC	12
13	NC		NC	13
14	NC		NC	14
15	NC		NC	15
16	NC		NC	16
17	NC		NC	17
18	NC		NC	18
19	NC		NC	19
20	GND	0	GND	20
21	GND	0	GND	21
22	GND	0	GND	22
23	GND	0	GND	23
24	NC	0	NC	24
25	GND	0	GND	25
26	GND	0	GND	26
27	NC	0	NC	27
28	GND	0	GND	28
29	GND	0	GND	29
30	GND	0	GND	30
31	GND	0	GND	31
32	GND	0	GND	32
33	NC		NC	33
34	NC		NC	34
35	NC		NC	35
36	NC		NC	36
37	NC		NC	37
38	NC		NC	38
39	NC		NC	39
40	NC		NC	40
41	NC		NC	41
42	NC		NC	42
43	NC		NC	43
44	NC		NC	44
45	NC		NC	45
46	NC		NC	46
47	NC		NC	47
48	NC		NC	48
49	NC		NC	49
50	NC		NC	50

5. PCB PARTS LIST

NOTES: ●Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

●The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

●When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 x 10¹ → 561 RD1/4PU 561 J

47k Ω → 47 x 10³ → 473 RD1/4PU 473 J

0.5 Ω → R50 RN2H R50 K

1 Ω → 1R0 RS1P 1R0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 x 10¹ → 5621 RN1/4PC 5621 F

LIST OF HOLE PCB ASSEMBLIES

Mark	Symbol and Description	PDP-R06U/KUCXJ	PRO-R06U/KUCXJ
⚠	1..MR DTB ASSY	AWE1305	AWE1305
⚠	1..MR MAIN ASSY	AWV2225	AWV2223
NSP ⚠	1..MR FUKUGO ASSY	AWV2226	AWV2224
	2..LED ASSY	AWW1045	AWW1045
	2..FRONT ASSY	AWW1046	AWW1044
⚠	1..POWER SUPPLY UNIT	AXY1113	AXY1113

MR MAIN ASSY

AWV2225 and AWV2223 are constructed the same except for the following :

Mark	Symbol and Description	AWV2225	AWV2223
	[BOARD IF BLOCK]		
	R4017,R4018	RS1/16SS474J	Not used
	R4024	Not used	RS1/16SS0R0J
	R4025	RS1/16SS0R0J	Not used
	CN4002 PH CONNECTOR 6P	Not used	AKM1277
	CN4003 12P FFC CONNECTOR	Not used	AKM1233
	[MR REG BLOCK]		
	IC4210	Not used	BD6522F
	Q4203	Not used	DTC124EUA
	F4204 EMI FILTER	Not used	CCG1162
	L4202 INDUCTOR	Not used	BTH1111
	L4206 CHIP FERRITE BEAD	Not used	BTX1042
	C4202,C4207,C4268	Not used	CKSSYF104Z16
	C4218 (10/6.3V)	Not used	ACG7046
	C4267	Not used	CEHVKW101M6R3
	R4202	Not used	RS1/16SS103J
	[AV IO BLOCK]		
	JA4601 4P MINI DIN SOCKET	AKP1234	AKP1235
	JA4605 9P PIN JACK	AKB1319	AKB1323
	[MAIN UCOM BLOCK]		
	R5243	Not used	RS1/16SS103J
	R5251	RS1/16SS103J	Not used
	[MR RGB SW BLOCK]		
	JA4701 9P PIN JACK	AKB1329	AKB1322

FRONT ASSY

AWW1046 and AWW1044 are constructed the same except for the following :

Mark	Symbol and Description	AWW1046	AWW1044
	R7869	Not used	RS1/16SS0R0J
	R7870	RS1/16SS0R0J	Not used
	JA7801 4P MINI DIN SOCKET	AKP1238	AKP1239
	JA7803 PIN JACK (3P)	AKB1303	AKB1304
	JA7805 PIN JACK (3P)	AKB1305	AKB1306

PCB PARTS LIST FOR PDP-R06U/KUCXJ UNLESS OTHER WISE NOTED

Mark No.	Description	Part No.	Mark No.	Description	Part No.
MR DTB ASSY			CAPACITORS		
[TUNER IF BLOCK]			C1108		CCSSCH100D50
SEMICONDUCTORS			C1106,C1115,C1124		CCSSCH101J50
IC1005		MCP3021A5-I/OTG	C1110		CCSSCH120J50
IC1001,IC1002		UPC3219GV	C1107,C1109,C1117		CCSSCH270J50
Q1002-Q1004		2SC5084	C1111,C1119		CCSSCH390J50
Q1007		BB504CDS			
Q1005		DTC143EUA	C1118		CCSSCH560J50
COILS AND FILTERS			C1103,C1112,C1128,C1129		CKSSYB102K50
F1006 SAW FILTER		ATF1219	C1133,C1134		CKSSYB102K50
F1005 SAW FILTER		BTF1130	C1101,C1102,C1104,C1105,C1116		CKSSYB103K16
L1001,L1005 CHIP COIL		BTH1121	C1121,C1122,C1127		CKSSYB103K16
L1004		LCTAW1R5J2520			
L1007		LCYA10NJ2520	C1123		CKSSYB271K50
L1006		LCYAR82J2520	RESISTORS		
F1002-F1004,F1007,F1008		VTF1084	All Resistors		RS1/16S###J
FERRITE BEAD					
CAPACITORS			[F/E IC BLOCK]		
C1022		ACH1429	SEMICONDUCTORS		
C1017		BCG1054	IC1201		BCM3517KQLGA1
C1010		CCSSCK2R0C50	COILS AND FILTERS		
C1027		CEHVKW100M50	L1203 CHIP BEAD FILTER		BTX1042
C1003		CEHVKW101M6R3	L1201		LCTAW1R8J2520
			F1201,F1202,F1204-F1206		VTF1084
C1026		CKSQYB225K10	FERRITE BEAD		
C1028		CKSSYB102K50	CAPACITORS		
C1001,C1002,C1004-C1007		CKSSYB103K16	C1235,C1257-C1259		BCG1054
C1011-C1014,C1018,C1019		CKSSYB103K16	C1201,C1203,C1218		BCG1059
C1023-C1025,C1036-C1039		CKSSYB103K16	C1229,C1234		CCSSCH120J50
			C1228,C1233		CCSSCH9R0D50
C1016,C1029,C1031		CKSSYB104K10	C1250		CKSSYB102K50
RESISTORS			C1204-C1214,C1216,C1217		CKSSYB103K16
R1011		RS1/16SS1001F	C1219-C1225,C1230,C1231		CKSSYB103K16
R1035		RS1/16SS1502F	C1237-C1239,C1241-C1249		CKSSYB103K16
R1018		RS1/16SS2201F	C1252-C1255		CKSSYB103K16
R1025		RS1/16SS4701F	C1215,C1236,C1251,C1256		CKSSYB104K10
R1024		RS1/16SS4703F			
			RESISTORS		
R1036		RS1/16SS5602F	R1201,R1227-R1229		RAB4CQ330J
R1045		RS1/16SS6801F	R1213,R1217		RS1/16S3010F
R1026		RS1/16SS6802F	Other Resistors		RS1/16S###J
Other Resistors		RS1/16S###J			
OTHERS			OTHERS		
△U1001 DIGITAL FRONT END		AXF1151	X1201 CRYSTAL RESONATOR		BSS1134
[QPSK RX BLOCK]			[VIDEO IC BLOCK]		
SEMICONDUCTORS			SEMICONDUCTORS		
IC1102		UPC3220GR	IC1302		HY57V161610ETP-8
			IC1303		TVP5160PNP
			Q1301-Q1303,Q1306		2SC4081
COILS AND FILTERS			COILS AND FILTERS		
F1101 FERRITE BEAD		VTF1084	L1301		LCYA220J2520
F1102 SAW FILTER		ATF1215	F1301-F1305,F1307 FERRITE BEAD		VTF1084
L1107		LCTAW1R5J2520			
L1104		LCYA56NJ2520			
L1103,L1105		LCYA68NJ2520			
			CAPACITORS		
L1102,L1108		LCYA82NJ2520	C1302,C1315,C1348,C1349		BCG1054
L1106		LCYAR10J2520	C1336		BCG1059

Mark No. Description**Part No.**

C1346,C1347
C1301
C1335,C1350,C1353,C1354
C1303-C1314,C1316-C1334
C1338-C1340,C1343-C1345

CCSSCH8R0D50
CKSSYB102K50
CKSSYB103K16
CKSSYB104K10
CKSSYB104K10

C1351,C1352

CKSSYB104K10

RESISTORS

R1301,R1302
R1309
R1311,R1319,R1377
Other Resistors

RAB4CQ101J
RS1/16SS1201F
RS1/16SS6800F
RS1/16S###J

OTHERS

X1301 CRYSTAL RESONATOR
(14.31818MHz)

BSS1119

**[A-A/D, AV-IF BLOCK]
SEMICONDUCTORS**

IC1404
IC1402

NJM2068V
PCM1803DB

COILS AND FILTERS

F1401,F1402,F1404 FERRITE BEAD VTF1084

CAPACITORS

C1401,C1402,C1412,C1418,C1419
C1403,C1408
C1416,C1421
C1406,C1413,C1417,C1422
C1404,C1409,C1414,C1423,C1424

BCG1054
BCG1059
CKSRYB105K10
CKSSYB103K16
CKSSYB104K10

C1407,C1420
C1405

CKSSYB271K50
DCH1165

RESISTORS

R1414,R1436
R1412,R1429
Other Resistors

RS1/16SS1002F
RS1/16SS2402F
RS1/16S###J

OTHERS

CN1402 40P CONNECTOR

AKM1217

**[POD IC BLOCK]
SEMICONDUCTORS**

IC1503
IC1504
IC1502
IC1506
IC1505,IC1507

CIMAXSP2L
SN74LVC244APW
SN74LVC245APW
SN74LVC257APW
SN74LVC373APW

CAPACITORS

C1510
C1513-C1516
C1502-C1509,C1511,C1512

CCSSCH680J50
CKSSYB102K50
CKSSYB104K10

RESISTORS

R1557
R1510,R1521,R1549
R1517-R1520,R1526-R1529,R1531
R1534,R1535,R1539-R1543,R1545
Other Resistors

RAB4CQ0R0J
RAB4CQ103J
RAB4CQ470J
RAB4CQ470J
RS1/16S###J

OTHERS

JA1501 PC CARD CONNECTOR

AKP1287

Mark No. Description**Part No.****[IEEE1394 BLOCK]
SEMICONDUCTORS**

IC1606
IC1604
IC1605
IC1601,IC1603
IC1602

CY2305SC-1H
PST3622NR
SN74LVC125APW
SN74LVC1G08DCK
TSB43CA42ZGW

Q1601

DTC124EUA

COILS AND FILTERS

L1605-L1608 CHOKE COIL
F1601,F1603 EMI FILTER
F1602,F1604 FERRITE BEAD

ATH1160
DTL1106
VTF1084

CAPACITORS

C1638-C1640
C1634,C1635
C1610,C1616
C1633,C1637
C1611,C1618,C1624

BCG1054
CCSSCH221J50
CCSSCH6R0D50
CKSRYB105K10
CKSSYB102K50

C1601,C1603,C1623,C1625-C1630
C1636
C1602,C1604-C1609,C1612,C1613
C1617,C1619-C1622,C1631,C1632

CKSSYB103K16
CKSSYB103K16
CKSSYB104K10
CKSSYB104K10

RESISTORS

R1606-R1612
R1634
R1635-R1639,R1649,R1652
R1676,R1677
R1653

RAB4CQ0R0J
RAB4CQ330J
RAB4CQ472J
RAB4CQ472J
RS1/16S6341D

R1674,R1675
R1659-R1663,R1671-R1673
Other Resistors

RS1/16SS5101F
RS1/16SS56R0D
RS1/16S###J

OTHERS

JA1601,JA1602
IEEE1394 CONNECTOR
X1601 CRYSTAL RESONATOR
(24.576MHz)

AKP1289

ASS1202

**[BACK END IC BLOCK]
SEMICONDUCTORS**

IC1701
Q2201

BCM7038KPB1G-B1
RN1901

COILS AND FILTERS

F1701-F1709 FERRITE BEAD
F1901 FERRITE BEAD
F2001-F2003 FERRITE BEAD
F2201-F2209 FERRITE BEAD

VTF1084
VTF1084
VTF1084
VTF1084

CAPACITORS

C1752
C1712
C2205
C1734,C1742,C1747,C1751,C1909
C2208

ACH1421
ACH1429
BCG1054
BCG1059
CCSSCH150J50

C1702,C1704,C1711,C1715,C1722
C1729,C1730,C1732,C1736,C1738
C1744,C1745,C1749,C1907,C2007
C2009,C2011,C2201,C2203,C2207
C2215,C2217,C2222,C2225,C2227

CKSSYB103K16
CKSSYB103K16
CKSSYB103K16
CKSSYB103K16
CKSSYB103K16

5	6	7	8	
Mark No.	Description	Part No.	Mark No.	Description
C2229	CKSSYB103K16	[FLASH, E2P BLOCK]		
C1701,C1703,C1705-C1710	CKSSYB104K10	<u>SEMICONDUCTORS</u>		
C1713,C1714,C1716-C1721	CKSSYB104K10	IC2805	BR24L64F-W	A
C1723-C1728,C1731,C1733,C1735	CKSSYB104K10	IC2702	PC28F256J3C125	
C1737,C1739-C1741,C1743,C1746	CKSSYB104K10	IC2804	PST3622NR	
		IC2701	SN74AHC2G02HDC	
C1748,C1750,C1902,C1903,C1908	CKSSYB104K10	Q2804	2SA1576A	
C2001,C2008,C2010,C2012,C2202	CKSSYB104K10			
C2204,C2206,C2216,C2218,C2223	CKSSYB104K10	Q2805	2SC4081	
C2226,C2228,C2230	CKSSYB104K10	Q2806	UMD2N	
		D2802	RB501V-40	
		D2801,D2803	UDZS4R7(B)	
RESISTORS		COILS AND FILTERS		
R2249,R2250	RAB4CQ101J	L2802	LCTAW2R2J2520	B
R1715	RAB4CQ330J			
R2002,R2006	RAB4CQ470J	CAPACITORS		
R1807-R1818	RAB4CQ472J	C2801	BCG1054	
R2204	RS1/16SS1002F	C2810-C2812,C2816,C2817	CCSRCH101J50	
		C2820,C2821	CCSRCH101J50	
R2208,R2209	RS1/16SS1101F	C2803,C2804	CCSSCH120J50	
R2201-R2203,R2205-R2207	RS1/16SS75R0F	C2802,C2806	CCSSCJ3R0C50	
Other Resistors	RS1/16S###J			
		C2822	CKSQYB105K16	
[DDR SDRAM BLOCK]		C2702-C2706,C2813,C2818,C2819	CKSSYB103K16	
SEMICONDUCTORS		C2701	CKSSYB104K10	
IC2303	BD3533F	C2808	CKSSYF104Z16	
IC2301,IC2302,IC2304,IC2305	MT46V16M16P-6TF			
CAPACITORS		RESISTORS		C
C2301,C2306,C2311,C2312,C2329	BCG1054	R2702	RAB4CQ101J	
C2352	BCG1054	R2704	RAB4CQ472J	
C2253,C2255	BCG1059	R2803,R2808	RS1/16S3010F	
C2313	CEHVKW101M6R3	Other Resistors	RS1/16S###J	
C2302-C2305,C2307-C2310	CKSSYB103K16			
		OTHERS		
C2315,C2316,C2319,C2320	CKSSYB103K16	JA2803 MINI JACK (4P)	AKN1073	
C2323,C2324,C2327,C2328	CKSSYB103K16	CN2701 80P CONNECTOR	BKP1159	
C2330-C2339,C2342,C2343	CKSSYB103K16	X2801 CRYSTAL RESONATOR	BSS1134	
C2346,C2347,C2350,C2351	CKSSYB103K16			
C2318,C2322,C2341,C2345	CKSSYB104K10			
		[A/V OUT BLOCK]		D
C2317,C2321,C2340,C2344	CKSSYB471K50	SEMICONDUCTORS		
		IC3001,IC3002,IC3004,IC3005	NJM2068V	
RESISTORS		Q2901	2SA1576A	
All Resistors	RS1/16S###J			
		COILS AND FILTERS		
[BUS TERMINAL BLOCK]		L3001,L3002 CHIP COIL	BTH1107	
COILS AND FILTERS		F2901 FERRITE BEAD	VTF1084	
F2601-F2603 FERRITE BEAD	VTF1084			
		CAPACITORS		
CAPACITORS		C2902	BCG1059	
C2509-C2511	BCG1054	C3003,C3013,C3023,C3036	CCSRCH331J50	
C2501-C2508	CKSSYB103K16	C3001,C3004,C3014,C3015	CCSSCH220J50	E
C2601-C2611	CKSSYB104K10	C3024,C3025,C3037,C3038	CCSSCH220J50	
		C3006,C3010,C3029,C3032	CCSSCH560J50	
		C3020,C3021,C3042,C3043	CKSSYB103K16	
RESISTORS				
R2501-R2508,R2552-R2559	RAB4CQ101J	C2924	CKSSYB104K10	
R2509-R2525,R2530-R2543	RAB4CQ220J	C3007,C3017,C3026,C3039	CKSSYB391K50	
R2545-R2548,R2560,R2561	RAB4CQ220J	C3009,C3012,C3031,C3035	CKSSYB821K50	
R2564,R2565,R2568-R2573	RAB4CQ220J	C2904	CKSSYF104Z16	
R2526-R2528,R2549,R2550	RAB4CQ510J	C3019,C3041	DCH1165	
		RESISTORS		
R2562,R2563,R2566,R2567	RAB4CQ510J	R3005,R3006,R3023,R3024	RS1/16SS3302F	
Other Resistors	RS1/16S###J	R3039,R3040,R3062,R3063	RS1/16SS3302F	F
		Other Resistors	RS1/16S###J	

	1	2	3	4		
	Mark No.	Description	Part No.	Mark No.	Description	Part No.
A	<u>OTHERS</u>			C3310	CKSSYB102K50	
	JA2901	OPTICAL OUTPUT JACK	TOTX179PL	C3307	CKSSYB103K16	
				C3318,C3322,C3351	CKSSYB471K50	
				C3306,C3309,C3325,C3326,C3364	CKSSYF104Z16	
				C3401,C3408,C3410,C3412	CKSSYF104Z16	
	<u>[DVD I/F BLOCK]</u>					
	<u>SEMICONDUCTORS</u>			<u>RESISTORS</u>		
	IC3104		PE5436A	All Resistors	RS1/16S###J	
	IC3101,IC3102		SN74AVC16827DGG			
	<u>COILS AND FILTERS</u>			<u>OTHERS</u>		
F3101,F3103	FERRITE BEAD	VTF1084	CN3301	12P CONNECTOR	AKM1298	
<u>CAPACITORS</u>			<u>[POWER BLOCK (2/2)]</u>			
C3102,C3116,C3117		BCG1054	<u>SEMICONDUCTORS</u>			
C3137-C3141		CCSSCH221J50	IC3312	BA00BC0WFP		
C3101,C3109-C3115		CKSRYB105K10	IC3314,IC3318	PST623XW		
C3118-C3131		CKSSYB102K50	IC3310,IC3313,IC3317,IC3321	R1224N102H		
C3103-C3108,C3132,C3133		CKSSYB104K10	Q3301,Q3305	2SA1576A		
C3134-C3136		CKSSYB471K50	Q3302,Q3303,Q3306,Q3311	CPH6311		
<u>RESISTORS</u>			Q3307	DTC124EUA		
R3121		RAB4CQ0R0J	Q3304,Q3308,Q3310	RN1901		
R3104,R3119,R3122,R3133,R3134		RAB4CQ330J	D3311,D3312,D3315,D3318	D1FM3		
R3145		RAB4CQ330J				
R3108,R3109,R3113		RAB4CQ470J				
Other Resistors		RS1/16S###J				
C	<u>OTHERS</u>			<u>COILS AND FILTERS</u>		
	CN3102	50P CONNECTOR	AKM1236	L3302,L3305	INDUCTOR	ATH1161
				L3301,L3317	CHOKE COIL	ATH1192
				L3307,L3308	CHIP BEAD FILTER	BTX1042
	<u>[POWER BLOCK (1/2)]</u>			<u>CAPACITORS</u>		
	<u>SEMICONDUCTORS</u>			C3338,C3346	ACH1429	
	IC3315		MM1563DF	C3332,C3334,C3337,C3339,C3347	BCG1054	
	IC3301,IC3306		MM1565AF	C3357,C3359	BCG1054	
	IC3309		NJM2370U09	C3344	BCG1059	
	IC3316		NJM2846DL3-18	C3335,C3358	CEHVKW101M6R3	
IC3302,IC3305,IC3307		NJM2846DL3-33	C3345	CEHVKW470M16		
D	IC3304		NJM2871BF05	C3331,C3333,C3340-C3342,C3360	CKSRYF105Z10	
	Q3309		2SC4081	C3336,C3343	CKSSYB102K50	
	D3308		1SS355	C3316,C3317,C3329,C3361	CKSSYB103K16	
	D3302-D3305,D3307,D3309,D3310		RB501V-40	C3441	CKSSYB152K50	
	D3314,D3316		RB501V-40	C3367	CKSSYB682K25	
	D3317		UDZS30(B)	C3330	CKSSYF104Z16	
	<u>COILS AND FILTERS</u>			<u>RESISTORS</u>		
	L3304	CHIP BEAD FILTER	BTX1042	R3352,R3353	RS1/10S271J	
	F3301,F3302	FERRITE BEAD	VTF1084	R3375,R3421	RS1/16SS1002F	
				R3382,R3422	RS1/16SS1003F	
			R3348	RS1/16SS1103F		
			R3381,R3425	RS1/16SS1202F		
E	<u>CAPACITORS</u>			R3344	RS1/16SS1503F	
	C3302,C3304,C3305,C3313,C3314		BCG1054	R3323,R3354	RS1/16SS2202F	
	C3321,C3363,C3409,C3411		BCG1054	R3355	RS1/16SS3302F	
	C3356		BCG1059	R3328	RS1/16SS5102F	
	C3323		BCG1060	R3380,R3384	RS1/16SS5602F	
	C3311		BCG1064	R3349	RS1/16SS9102F	
	C3324		CEHVKW100M50	R3314-R3316	RS1/4S1R5J	
	C3407		CEHVKW470M16	R3337,R3338	RS1/4S3R3J	
	C3301,C3319,C3353		CKSQYB105K16	Other Resistors	RS1/16S###J	
	C3354		CKSQYB225K10			
C3308,C3362		CKSRYB105K10				
F				<u>OTHERS</u>		
				8008	INSULATION SHEET	AAK2862
				8001	THERMAL SHEET B	AEB1417
				8101	CASE TOP U	ANG2787
				8102	CASE BOTTOM	ANG2898
				8103	HEAT SINK B	ANH1645

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
8006	GASKET	ANK1789
8007	GASKET	ANK1790
8301	SCREW	BBB30P080FTC
8302	SCREW	BBZ30P060FTC
8303	SCREW	PMB20P100FTC

MR MAIN ASSY
[BOARD IF BLOCK]
SEMICONDUCTORS

Q4001	DTA124EUA
D4001	1SS355

RESISTORS

R4008,R4010	BCN1070
R4011	RAB4CQ0R0J
R4021-R4023	RS1/10S0R0J
Other Resistors	RS1/16S###J

OTHERS

CN4004	50P CONNECTOR	AKM1201
CN4015	3P CONNECTOR	AKM1213
CN4001	50P CONNECTOR	AKM1236
CN4007,CN4009	3P CONNECTOR	AKM1274
CN4005	40P CONNECTOR	AKM1303

[MR REG BLOCK]
SEMICONDUCTORS

IC4212	BD6522F
IC4211	MM1661JH
IC4202	NCP1117ST15
IC4209	NCP1117ST18
IC4204,IC4205	PQ033ENA1ZPH
IC4206	PQ050DNA1ZPH
IC4203	PQ090DNA1ZPH
Q4201	DTC124EUA
D4202-D4206 D4209 D4211	1SS355

COILS AND FILTERS

L4201 INDUCTOR	BTH1111
⚠ L4203 CHIP BEAD FILTER	BTX1042
⚠ F4201-F4203,F4205,F4207 EMI FILTER	CCG1162 BTH1111

CAPACITORS

C4206,C4209,C4215 (10/6.3V)	ACG7046
C4220,C4240,C4250 (10/6.3V)	ACG7046
C4253,C4257 (10/6.3V)	ACG7046
C4260,C4263 (10/6.3V)	ACG7046
C4213 (100UF/16V)	ACH1394
C4210,C4244,C4269	ACH1429
C4273	CCSSCH101J50
C4216,C4219,C4221,C4222,C4224	CEHVKW101M6R3
C4228,C4238,C4264	CEHVKW101M6R3
C4226	CEHVKW220M16
C4214	CKSRYB104K16
C4217,C4223	CKSRYB105K10
C4229,C4252	CKSSYB104K10
C4232	CKSSYB471K50
C4204,C4212,C4227,C4251	CKSSYF104Z16
C4261,C4262	CKSSYF104Z16
C4211,C4225,C4256	DCH1165

Mark No.	Description	Part No.
<u>RESISTORS</u>		
R4225		RS1/10S0R0J
Other Resistors		RS1/16S####J
<u>OTHERS</u>		
U4201	DD CONTROL UNIT	AXY1117

[MR TUNER BLOCK]
SEMICONDUCTORS

IC4402	CXA2064M
IC4401	TC74HC4066AFT
Q4406,Q4414	2SA1586
Q4401,Q4402,Q4405,Q4408,Q4409	2SC4116
Q4416-Q4418	2SC4116

Q4404	DTA124EUA
Q4403,Q4407,Q4413,Q4415	HN1B04FU
Q4410	HN1C01FU
D4401	1SS355
D4402	UDZS30(B)

COILS AND FILTERS

L4401-L4404	CHIP COIL	BTH1121
F4401-F4404	FERRITE CORE	VTF1080

CAPACITORS

C4419,C4425,C4427 (4.7U/10V)	ACG1122
C4430,C4440,C4441 (4.7U/10V)	ACG1122
C4412,C4443 (10/6.3V)	ACG7046
C4445 (100UF/16V)	ACH1394
C4421	ACH1417

C4420	ACH1418
C4450	CCSRCH331J50
C4414,C4447	CCSRCH821J50
C4401	CEHVKW100M50
C4405,C4406,C4434,C4435	CEHVKW101M6R3

C4436	CEHVKW220M16
C4422,C4428,C4451,C4452	CKSRYB105K10
C4442	CKSRYB123K50
C4407,C4431	CKSRYF104Z50
C4402,C4415,C4416	CKSSYB102K50

C4423	CKSSYB272K50
C4424	CKSSYB473K16
C4429	CKSSYB562K25
C4410,C4411,C4439	CKSSYF104Z16
C4418,C4426,C4444,C4446	DCH1165

RESISTORS

R4401	ACN1199
R4430,R4431	RS1/16SS1002F
R4437	RS1/16SS6802F
VR4401	CCP1394
VR4402-VR4404	CCP1396
Other Resistors	RS1/16S###J

OTHERS

⚠ U4401 TV FRONT END SYSTEM	AXF1130
⚠ U4402 FRONT END (US)	AXF1148

Mark No. Description**Part No.****Mark No. Description****Part No.****[AV IO BLOCK]
SEMICONDUCTORS**

A

IC4601
IC4603
IC4602
Q4605-Q4607,Q4612,Q4615
Q4609,Q4610,Q4613

MAX3232CPW
TC74VHC00FTS1
TC74VHC125FTS1
2SA1586
2SC4116

Q4602,Q4603
Q4601
Q4604,Q4611,Q4614,Q4616
Q4608
D4601

2SC5233
DTA124EUA
DTC124EUA
HN1A01FU
1SS301

D4602,D4618-D4621

1SS355

B

CAPACITORS

C4607 (10/6.3V)
C4601,C4608
C4632,C4634
C4610,C4612,C4617-C4620
C4625,C4626

ACG7046
ACH1419
CEHVKW100M16
CKSRYB105K10
CKSRYB105K10

C4611,C4615,C4616,C4622-C4624
C4614,C4621
C4606,C4627-C4631,C4633,C4635
C4602,C4605,C4609,C4613

CKSSYB103K16
CKSSYB473K16
CKSSYF104Z16
DCH1165

C

RESISTORS

R4619
R4611
R4624,R4625,R4627,R4633
R4635,R4636
Other Resistors

RS1/10S121J
RS1/10S151J
RS1/16S75R0F
RS1/16S75R0F
RS1/16S###J

D

OTHERS

JA4605 9P PIN JACK
JA4603 MINI JACK (4P)
CN4602 9P D-SUB SOCKET
JA4601 DUAL 4P MINI DIN (S)
JA4604 REMOTE CONTROL JACK

AKB1319
AKN1073
AKP1213
AKP1234
RKN1004

D

**[MR AV SW BLOCK]
SEMICONDUCTORS**

E

IC4803
IC4801
Q4801-Q4803,Q4805,Q4806
Q4811,Q4812
Q4807,Q4810,Q4813,Q4814

NJM12904V
R2S11002FT
2SA1586
2SA1586
2SC4116

Q4808,Q4815
Q4809,Q4816
D4801

DTA124EUA
DTC124EUA
1SS301

E

CAPACITORS

C4834
C4818,C4822 (10/6.3V)
C4825,C4828,C4832,C4833
C4847,C4850
C4852,C4855

ACG1122
ACG7046
CCG1205
CCSRCH181J50
CCSRCH681J50

C4819
C4802,C4804,C4806,C4807
C4810,C4811,C4813,C4817
C4820,C4821,C4823,C4824,C4827
C4837,C4838,C4848,C4849

CEHVKW101M6R3
CKSRYB105K10
CKSRYB105K10
CKSRYB105K10
CKSRYB105K10

F

RESISTORS

R4819,R4821
R4818,R4820
Other Resistors

RS1/16S1800F
RS1/16S5600F
RS1/16S###J

**[IF UCOM BLOCK]
SEMICONDUCTORS**

IC5002
IC5003
IC5001
IC5004
Q5001

HD64F3684FP
PST9230N
TC74VHC08FTS1
TC7W126FU
DTC124EUA

CAPACITORS

C5007,C5008
C5001
C5010
C5002-C5005,C5009,C5012

CCSSCH180J50
CEHVKW101M6R3
CKSSYB472K25
CKSSYF104Z16

RESISTORS

R5002,R5004,R5007,R5025,R5026
Other Resistors

RAB4CQ103J
RS1/16S###J

OTHERS

X5002 CERAMIC RESONATOR
X5001 CRYSTAL OSCILLATOR

ASS1168
ASS1172

**[MAIN UCOM BLOCK]
SEMICONDUCTORS**

IC5202
IC5206
IC5207
IC5210
IC5209

BR24L64F-W
MB91305PMC-G-BND
MBM29DL162TE70TN
MM1522XU
PQ200WNA1ZPH

IC5203
IC5201,IC5204
Q5202
Q5204
Q5201

PST3628UR
TC74VHC125FTS1
2SJ461A
DTC124EUA
SM6K2

D5203
D5201

1SS355
SML-311UT

CAPACITORS

C5235
C5217,C5218,C5240-C5249
C5238
C5201
C5261-C5263,C5276

CCSRCH221J50
CCSSCH470J50
CEHVKW100M35
CEHVKW101M6R3
CKSSYB102K50

C5216,C5233
C5215
C5253
C5202-C5214,C5219,C5222-C5232
C5234,C5252,C5399

CKSSYB103K16
CKSSYB472K25
CKSSYF103Z50
CKSSYF104Z16
CKSSYF104Z16

C5236

DCH1165

5	6	7	8
Mark No. Description Part No.	Mark No. Description Part No.		
RESISTORS		RESISTORS	
R5262,R5268	ACN1248	R6010,R6068,R6072	ACN1246
R5205,R5213	RAB4CQ101J	R6065,R6073	BCN1067
R5283	RS1/16S1201F	R6007,R6030,R6071	RAB4CQ220J
R5282	RS1/16S4301F	R6063	RS1/16SS1001D
R5273	RS1/16S8201F	R6038,R6039,R6049	RS1/16SS2000F
Other Resistors	RS1/16S###J	R6054	RS1/16SS2201D
		R6052	RS1/16SS6200D
		Other Resistors	RS1/16S###J
OTHERS		OTHERS	
CN5202 50P CONNECTOR	AKM1201	X6002 CRYSTAL	ASS1191
K5201,K5202 TEST PIN	AKX9002		
X5201 CERAMIC RESONATOR	ASS1178		
[CCD UCOM BLOCK]		[MR ADC BLOCK]	
SEMICONDUCTORS		SEMICONDUCTORS	
IC5603	FMS6410CS	IC6201	AD9985KSTZ-110
IC5602	PEG150A		
Q5601,Q5605	2SA1586		
		COILS AND FILTERS	
CAPACITORS		⚠ F6201,F6204 EMI FILTER	CCG1162
C5612,C5614	CCG1205		
C5603,C5609	CCSRCH331J50	CAPACITORS	
C5618,C5619	CCSRCH5R0C50	C6205,C6209	CKSSYB104K10
C5611,C5613	CCSSCH221J50	C6207,C6210,C6218	CKSSYB473K16
C5620	CCSSCK2R0C50	C6202	CKSSYB822K16
		C6201	CKSSYB823K10
C5605,C5617	CEHVKW100M16	C6203,C6204,C6206,C6208	CKSSYF104Z16
C5622,C5623	CKSRYB105K10		
C5606,C5607	CKSSYB102K50	C6211,C6212,C6215-C6217	CKSSYF104Z16
C5602,C5604	CKSSYB104K10	C6222-C6224	CKSSYF104Z16
C5621	CKSSYB153K16		
		RESISTORS	
C5608,C5610,C5615,C5616,C5624	CKSSYF104Z16	R6213,R6218,R6223	BCN1067
		R6202	RS1/16SS2701F
		Other Resistors	RS1/16S###J
RESISTORS			
R5631	RAB4CQ101J		
R5633	RAB4CQ102J	[MR HDMI BLOCK]	
R5601-R5603,R5606-R5609	RAB4CQ473J	SEMICONDUCTORS	
R5614-R5617,R5621-R5623	RAB4CQ473J	IC6402,IC6403	BR24L02FJ-W
R5657,R5658	RAB4CQ473J	IC6405	PCM1754DBQ
Other Resistors	RS1/16S###J	IC6404	SII9021CTU
		Q6416,Q6417	2SA1586
		Q6412,Q6414	DTA124EUA
OTHERS			
X5601 CERAMIC RESONATOR	ASS1159	Q6413,Q6415	DTC124EUA
		Q6402,Q6405	HN1K02FU
		Q6403,Q6404	RN1902
[MR VDEC BLOCK]		D6404,D6408	1SS301
SEMICONDUCTORS		D6403,D6407	UDZS6R8(B)
IC6002	K4S161622H-TC60		
IC6003	UPD64015GM-UEU	COILS AND FILTERS	
		⚠ F6401 EMI FILTER	CCG1162
COILS AND FILTERS			
⚠ F6001,F6002,F6010,F6011	CCG1162	CAPACITORS	
EMI FILTER		C6491 (10/6.3V)	ACG7046
CAPACITORS		C6401,C6403,C6405,C6409,C6411	CCSSCH101J50
C6056,C6088	ACG7046	C6419,C6426,C6428,C6430,C6432	CCSSCH101J50
C6078,C6083	CCSSCH8R0D50	C6434,C6435,C6438,C6440,C6442	CCSSCH101J50
C6062,C6065,C6069,C6071,C6079	CKSSYB103K16	C6444,C6446,C6448,C6449,C6454	CCSSCH101J50
C6046,C6058,C6063,C6064	CKSSYB104K10		
C6066,C6067,C6070,C6072-C6077	CKSSYB104K10	C6456,C6459,C6464,C6466,C6468	CCSSCH101J50
		C6470,C6472,C6474,C6476,C6478	CCSSCH101J50
C6080-C6082,C6084,C6085	CKSSYB104K10	C6480,C6482	CCSSCH101J50
C6001-C6008,C6012-C6028	CKSSYF104Z16	C6462,C6463	CCSSCH120J50
C6031-C6045,C6047,C6048,C6068	CKSSYF104Z16	C6425,C6484	CEHVKW220M6R3

Mark No. Description

C6402,C6404,C6406,C6408,C6410
C6412,C6414,C6416,C6418
C6420-C6424,C6427,C6429,C6431
C6433,C6436,C6437,C6439,C6441
C6443,C6445,C6447,C6450-C6453

A

C6455,C6457,C6458,C6460,C6461
C6465,C6467,C6469,C6471,C6473
C6475,C6477,C6479,C6481,C6483
C6490

RESISTORS

R6418,R6419,R6421
R6414
R6465
R6438
R6416

B

Other Resistors

OTHERS

JA6401,JA6402
HDMI CONNECTOR
X6401 CRYSTAL

**[MR DSEL BLOCK]
SEMICONDUCTORS**

IC6601
IC6602

C

COILS AND FILTERS

⚠ F6604 CHIP BEAD FILTER
⚠ F6601-F6603 EMI FILTER

CAPACITORS

C6632 (10/6.3V)
C6604
C6631
C6601-C6603,C6607-C6610
C6613-C6617,C6619,C6621-C6623

D

C6625-C6627,C6629,C6630

RESISTORS

R6603-R6605
R6611,R6614,R6618
R6613,R6620
Other Resistors

E

OTHERS

X6601 CRYSTAL

F

**[MR IP BLOCK]
SEMICONDUCTORS**

IC6801,IC6802
IC6803

COILS AND FILTERS

⚠ L6801-L6804 CHIP BEAD FILTER

CAPACITORS

C6801 (10/6.3V)
C6863
C6802,C6804,C6807-C6809,C6813
C6815-C6817,C6821,C6824-C6828
C6830,C6831,C6834,C6835

F

Part No.

CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

ACN1251
RAB4CQ100J
RAB4CQ103J
RAB4CQ470J
RAB4CQ680J

RS1/16S###J

AKP1278

ASS1192

PD6523A
TC74LCX125FT

ATX1058
CCG1162

ACG7046
CCSRCH221J50
CKSSYB102K50
CKSSYF104Z16
CKSSYF104Z16

CKSSYF104Z16

ACN1251
BCN1071
RAB4CQ101J
RS1/16S###J

ASS1194

K4S643232H-TC60
PE5504B

BTX1042

ACG7046
CKSSYB102K50
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

Mark No. Description

C6839-C6862

RESISTORS

R6833,R6838
R6841,R6844-R6847
R6813,R6814,R6816,R6820,R6821
R6823,R6825,R6827,R6828
R6818

R6832
R6817
Other Resistors

**[MR MULTI BLOCK]
SEMICONDUCTORS**

IC7002
IC7001
IC7004

COILS AND FILTERS

⚠ F7001-F7006 EMI FILTER

CAPACITORS

C7052
C7006,C7008,C7010-C7017,C7019
C7021,C7023,C7024,C7026-C7029
C7032-C7034,C7036,C7037
C7039-C7042,C7044,C7046-C7048

C7050

RESISTORS

R7011,R7013,R7024,R7032,R7036
R7062-R7064
R7015,R7023
R7016,R7018,R7070
R7060

Other Resistors

**[MR IF BLOCK]
SEMICONDUCTORS**

IC7202
IC7201,IC7203
Q7206
Q7203,Q7207,Q7210
Q7211

Q7209
Q7201
D7202-D7206

COILS AND FILTERS

⚠ F7204-F7207 EMI FILTER
⚠ L7201 CHIP FERRITE BEAD
⚠ F7201-F7203,F7208 EMI FILTER

CAPACITORS

C7203,C7207,C7208 (10/6.3V)
C7226,C7227
C7201,C7204,C7211,C7213,C7214
C7216,C7217,C7219,C7221
C7223

C7209,C7215,C7220,C7225,C7228
C7202,C7205,C7206,C7210,C7212
C7218,C7224

Part No.

CKSSYF104Z16

ACN1246
ACN1251
BCN1067
BCN1067
BCN1071

RAB4CQ101J
RAB4CQ470J
RS1/16S###J

MBM29DL162TE70TN
PEG121B
TC74VHC08FTS1

CCG1162

CKSSYB102K50
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16

CKSSYF104Z16

ACN1246
ACN1251
RAB4CQ101J
RAB4CQ103J
RAB4CQ680J

RS1/16S###J

SII170BCLG64
TC74VHC08FTS1
2SA1586
DTA124EUA
DTC124EUA

HN1C01FU
RN1902
1SS355

ATF1209
BTX1042
CCG1162

ACG7046
CCSSCH100D50
CCSSCH101J50
CCSSCH101J50
CKSSYB102K50

CKSSYB471K50
CKSSYF104Z16
CKSSYF104Z16

5	6	7	8
Mark No. Description	Part No.	Mark No. Description	Part No.
RESISTORS		RESISTORS	
R7215	RAB4CQ101J	All Resistors	RS1/16S###J
R7216	RS1/16S5100F		
Other Resistors	RS1/16S###J	OTHERS	
		CN8001 CONNECTOR	CKS3826
OTHERS			
CN7201 SOCKET (20P)	AKP1226		
CN7202 DVI SOCKET (24P)	AKP1250		
[MR RGB SW BLOCK]		FRONT ASSY	
SEMICONDUCTORS		SEMICONDUCTORS	
IC4701	NJM12904V	IC7801	BR24C21FJ
IC4702	R2S11001FT	IC7802	TC74VHC08FTS1
IC4703	TC7WH123FU	Q7801-Q7803,Q7806-Q7808	2SC4116
Q4706-Q4709	2SA1586	Q7804,Q7805	DTC124EUA
Q4703	2SC4116	D7813	1SS301
Q4704	2SC5233	D7805-D7807,D7816-D7818	1SS302
Q4701	DTA124EUA	D7801-D7803	UDZS5R1(B)
Q4702	DTC124EUA	D7811,D7812,D7814,D7815	UDZS5R6(B)
Q4705	HN1A01FU	D7804,D7808	UDZS9R1(B)
D4701,D4708	1SS301		
CAPACITORS		CAPACITORS	
C4737,C4741,C4755 (10/6.3V)	ACG7046	C7821,C7827 (10/6.3V)	ACG7046
C4702	CCSRCH331J50	C7829,C7830 (10/6.3V)	ACG7046
C4725,C4727	CCSRCH680J50	C7822,C7823	CCSRCH220J50
C4728	CEHVKW101M6R3	C7841,C7844,C7846	CEHVKW100M16
C4705	CEHVKW220M16	C7803,C7804	CKSRYB103K50
C4711-C4716,C4723,C4729-C4731	CKSRYB105K10	C7805,C7808,C7809,C7813	CKSRYB105K10
C4734,C4738,C4739,C4743,C4754	CKSRYB105K10	C7831,C7832,C7834,C7839,C7842	CKSRYB105K10
C4706	CKSRYB224K10	C7845	CKSRYB105K10
C4703	CKSRYB473K16	C7801	CKSRYB473K16
C4717-C4721,C4724,C4726,C4732	CKSSYB103K16	C7802,C7820,C7824,C7840,C7843	CKSSYF104Z16
C4735,C4736,C4742,C4750-C4753	CKSSYB103K16	C7847,C7848	CKSSYF104Z16
C4707-C4710,C4740,C4744,C4745	CKSSYF104Z16	C7819,C7835,C7849	DCH1165
C4749	CKSSYF104Z16		
C4701,C4704	DCH1165	RESISTORS	
		R7801,R7803,R7809,R7823-R7825	RS1/16S75R0F
RESISTORS		R7857-R7859	RS1/16S75R0F
R4756	RS1/16S1800F	Other Resistors	RS1/16S###J
R4746	RS1/16S5600F		
R4728-R4730,R4748-R4750	RS1/16S75R0F	OTHERS	
Other Resistors	RS1/16S###J	JA7803 PIN JACK (3P)	AKB1303
		JA7805 PIN JACK (3P)	AKB1305
OTHERS		CN7803 12P FFC CONNECTOR	AKM1233
JA4701 PIN JACK (9P)	AKB1329	CN7804 50P CONNECTOR	AKM1236
		CN7806 15P D-SUB SOCKET	AKP1214
		JA7801 4P MINI DIN SOCKET (S)	AKP1238
LED ASSY			
SEMICONDUCTORS		POWER SUPPLY UNIT	
Q8003	DTA124EUA	POWER SUPPLY Unit has no service part.	
Q8004	DTC124EUA		
Q8002	RN2902		
D8001	SML-311DT		
D8003	SML-311UT		
D8004	SML310BA1T		
SWITCHES AND RELAYS			
S8001-S8007	ASG1088		
CAPACITORS			
C8005,C8006	CCSRCH101J50		
C8001,C8007	CKSSYF104Z16		

1. At shipment, the unit is adjusted to its best conditions. Normally, it is not necessary to readjust even if an assembly is replaced.
Replacement of individual components on the circuitboard can cause malfunction and/or failure. If replacement is necessary, the assembly must be replaced.
2. Use a stable AC power supply.

6.1 POSSIBLE CASES WHERE READJUSTMENT IS REQUIRED

■ When any of the following assemblies is replaced

POWER SUPPLY Unit	➡	No adjustment required
MR MAIN Assy	➡	No adjustment required
MR DTB Assy	➡	No adjustment required However, HOST ID is changed. Please tell a customer about new HOST ID. Refer to the following note and instruction manual.
PC Card Unit	➡	No adjustment required
Other assemblies	➡	No adjustment required

■ When any part in the following assemblies is replaced

POWER SUPPLY Unit	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
MR MAIN Assy	➡	Replacement of components IC4801, IC5202, IC5207, IC6003 and IC6201 on the circuitboard can cause malfunction and/or failure. If replacement is necessary, the assembly must be replaced.
MR DTB Assy	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
PC Card Unit	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
Other assemblies	➡	No adjustment required

■ Adjustment items

- ① Audio Level Adjustment
- ② Audio Level Adjustment
- ③ MSP Adjustment
- ④ MSP Adjustment

Note: Checking the Cable Card ID

- The Media Receiver has a slot for a cable card that is used for managing your information by the cable TV company. The following procedure allows you to check your Cable Card ID and the Host ID.
1. Press HOME MENU.
2. Select "Tuner Setup". (▲/▼ then ENTER)
3. Select "Channel Setup". (◀/▶ then ENTER)
4. Select "POD ID". (▲/▼)
 - The Host ID and Cable Card ID appear.
5. Press HOME MENU to exit the menu.

6.3 ADJUSTMENT ITEMS



If readjustment is necessary because of adjustment error at shipment, perform adjustments as shown below.

● Adjustment Points

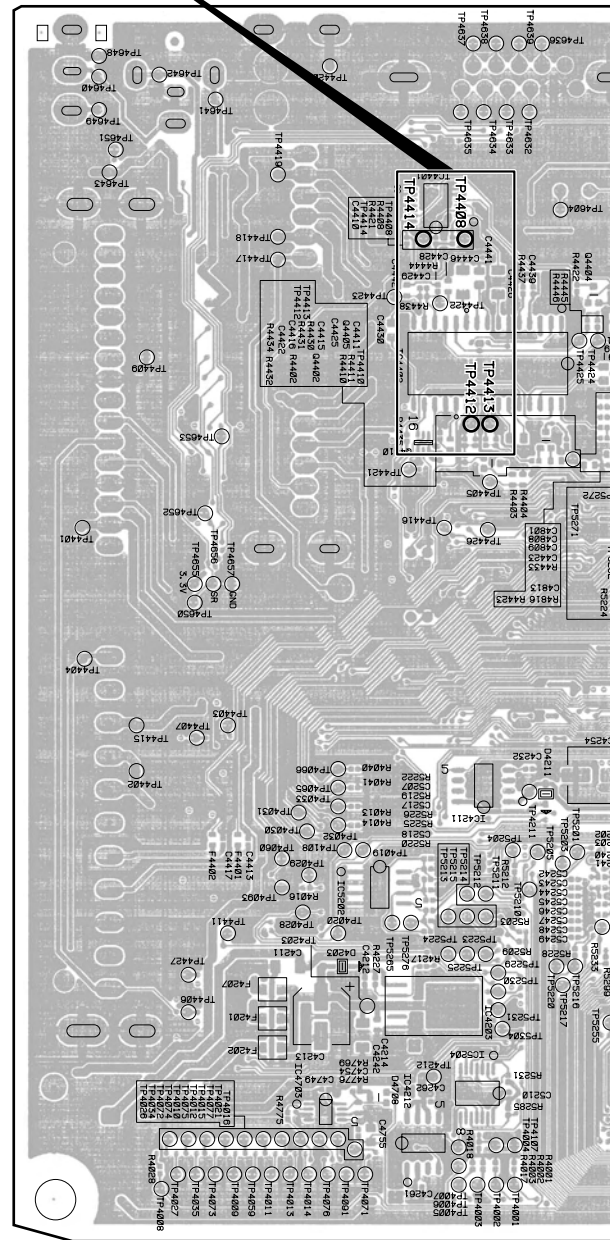
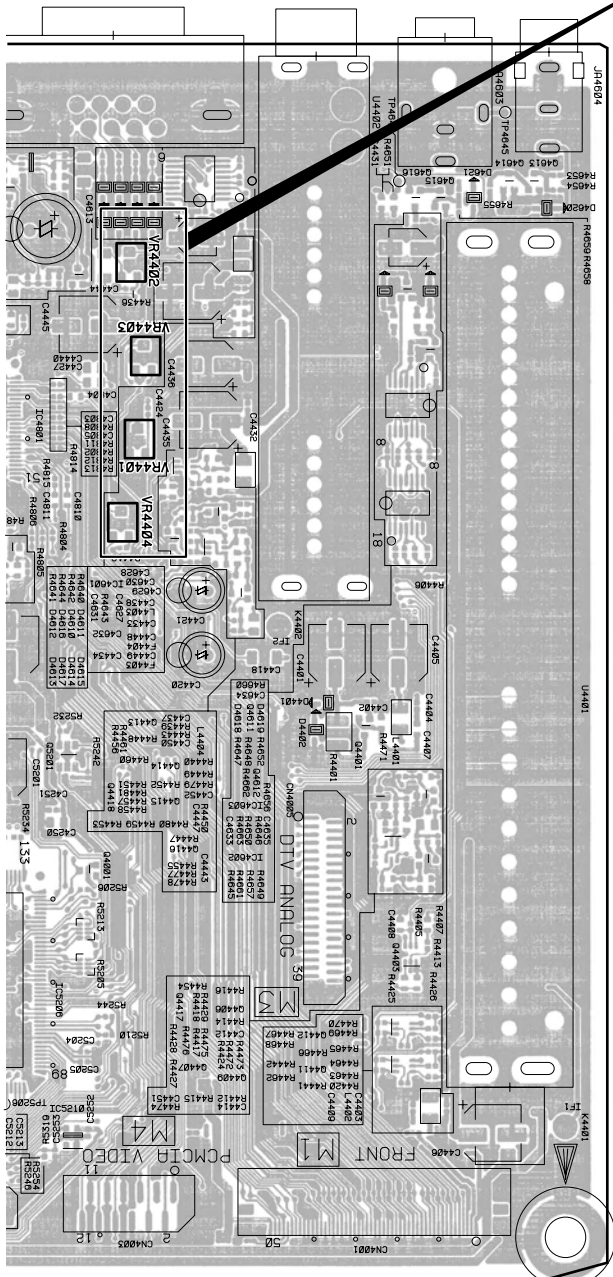
MR MAIN ASSY

Rear side

SIDE A

SIDE A

SIDE B



1 Audio Level Adjustment

Equipment : SG, Digital mutimeter / Tester

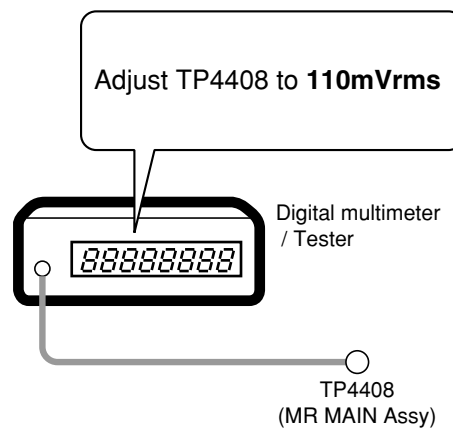
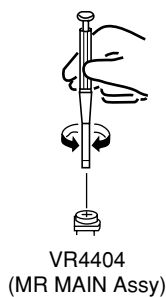
Condition : Input RF level 75dB μ V
1kHz MONO 100%

START



Select
ANT A 55.25 MHz
AIR
02

1 ~ 9



2 Audio Level Adjustment

Equipment : SG, Digital mutimeter / Tester

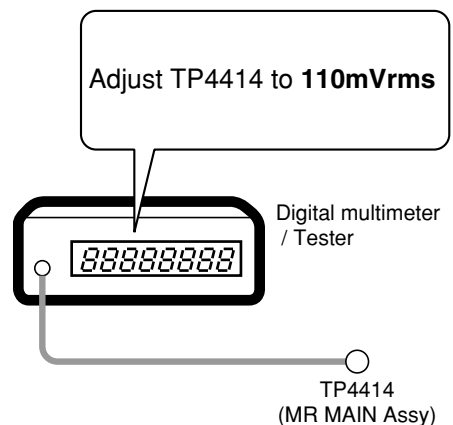
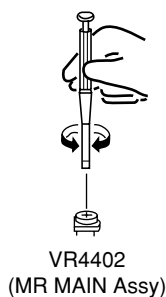
Condition : Input RF level 75dB μ V
1kHz MONO 100%

START



Select
ANT B 55.25 MHz
AIR
02

1 ~ 9



3 MSP Adjustment

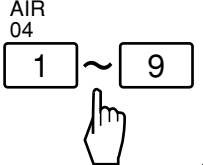
Equipment : SG, Digital mutimeter / Tester

Condition : Input RF level 75dB μ V
300Hz STEREO 100% Lch Only

START



Select
ANT B 67.25 MHz
AIR
04

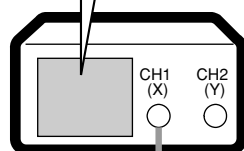
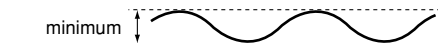


VR4403
(MR MAIN Assy)



Adjust
Turn the wave pattern into a minimum.

minimum



Oscilloscope

TP4412
(MR MAIN Assy)

4 MSP Adjustment

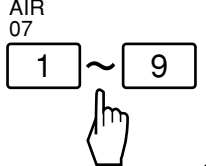
Equipment : SG

Condition : Input RF level 75dB μ V
5kHz STEREO 100% Lch Only

START



Select
ANT B 175.25 MHz
AIR
07

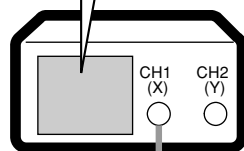


VR4401
(MR MAIN Assy)



Adjust
Turn the wave pattern into a minimum.

minimum



Oscilloscope

TP4412
(MR MAIN Assy)

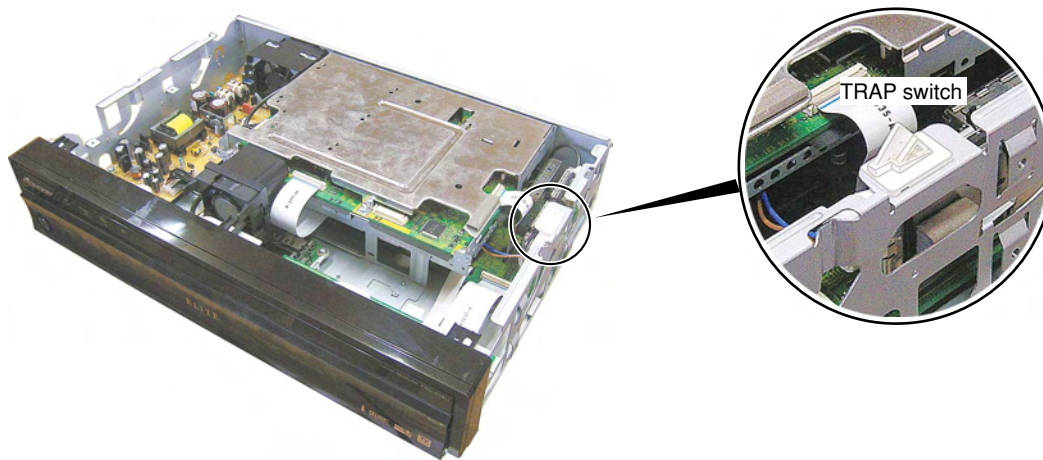
6.4 TRAP SWITCH

● Outline and Notes

For video data transmission from the Media Receiver to the PDP-436U and PDP-506U-series Plasma Displays, digital signals are used. Therefore, this unit adopts the HDCP (High-bandwidth Digital Content Protection) system for copyright protection. This unit is also provided with a detection switch (TRAP switch) that will prohibit the unit from being turned on again "if the upper plate of the unit is accidentally opened," in order to prevent the panel technology from being leaked out.

The TRAP switch is disabled while the unit is turned off.

When performing internal diagnosis of the PDP, fix the switch to the OFF position using adhesive tape before turning on the unit. After servicing, be sure to remove the adhesive tape.



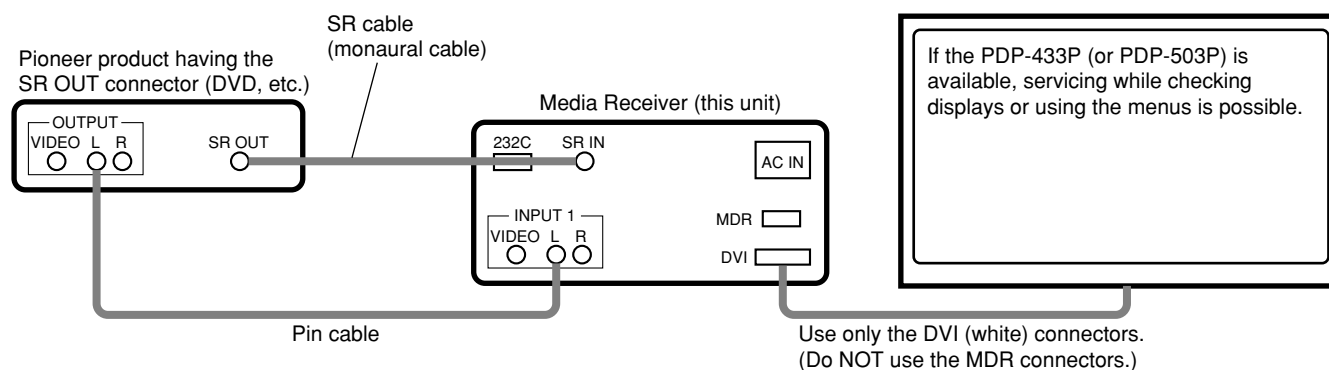
6.5 SERVICING USING ONLY THE MEDIA RECEIVER

For servicing of the PDP-436HD and PDP-506HD-series Plasma Display using only the Media Receiver, the following two methods can be used:

● Remote controlling using SR connections

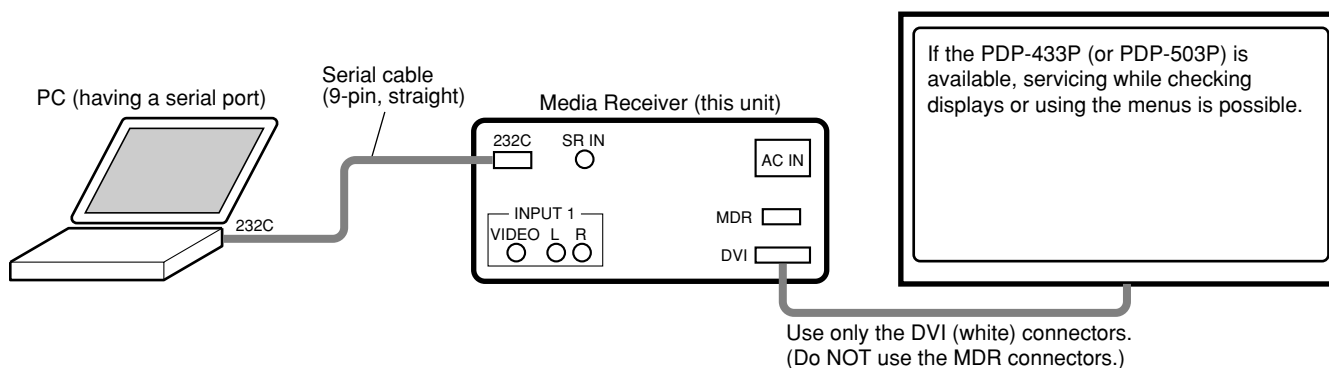
About connections

- Connect the SR OUT connector of a Pioneer product having that connector (a DVD in the following example) and the SR IN connector of the Media Receiver, using the SR cable. As the remote control sensor is not provided with the Media Receiver, this connection is required for using the remote control unit if the panel is not available. In this case, aim the remote control unit at the remote control sensor of the device (DVD in this case).
- Connect either the audio or the video output of the device (DVD in the example) and the corresponding audio or video input of the Media Receiver, using a cable with phono plugs. This connection is required in order to use ground in common with the SR cable, because with the SR cable connection the ground connection for signal reference is not available. In the example, the audio L channel is used, but the audio R channel or video can be used instead.
- If the plasma display for a previous model, such as the PDP-435P or PDP-505P, is available, servicing while checking displays or using the menus is possible. For this, connect only the DVI connectors (white) of the Media Receiver and the plasma display. The MDR connector of the Media Receiver must not be used, even though it has the same shape and number of pins, because signals assigned to the connectors



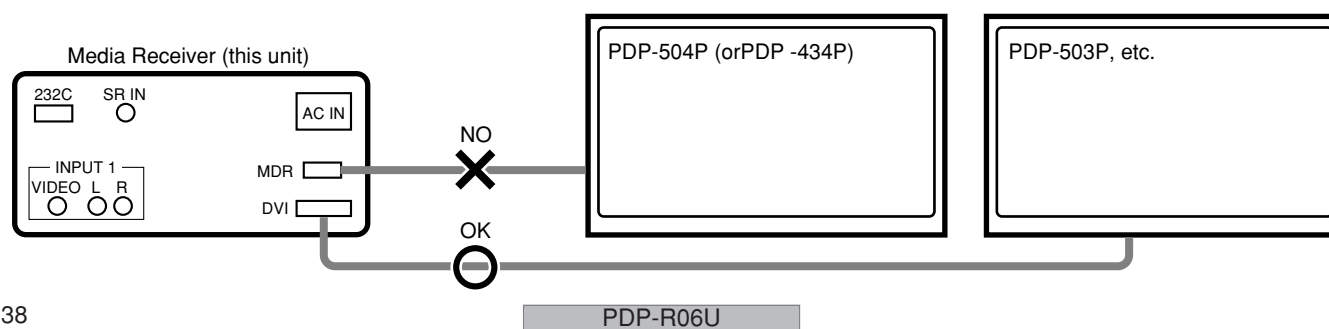
● RS-232C control using a PC

In this case the setting is RS-232C 38400bps, and the setting of "6.2. USING RS-232C COMMANDS" is not related. Please set baud rate of PC in 38400bps. For connection with the PC, use a straight cable.



● Note on connection

If the MDR connector of the PDP-436HD or PDP-506HD-series is used, it is considered that the PDP-436P (or PDP-506P) is connected, and the Media Receiver operates on such precondition, **which may result in a failure of the Media Receiver. Be sure not to connect to the MDR connector.** (Do NOT use the MDR connector when servicing the Media Receiver alone.)



6.6 SERVICE FACTORY MODE

To operate in Service Factory mode, use the supplied remote control unit.

How to enter Service Factory Mode

While in Standby mode, follow the below procedures with the remote control to enter Service Factory mode.

1. Press the [DISPLAY] key.
2. 3 second counter will start.
3. After 3 seconds, press [LEFT] key.
(If no operation is done within 10 seconds, the Service Factory routine is cleared, and the standby mode is returned)
4. 5 Second counter will start.
5. Before 5 second counter ends, press [UP] key.
6. Before 5 second counter ends, press [LEFT] key.
7. Before 5 second counter ends, press [RIGHT] key.
8. Before 5 second counter ends, press [POWER] key.
9. If the procedure is correct with the given time, the Service Factory mode is up and ready.

* During step 3 to 8, if other operations took place, the Service Factory routine is cleared.

* If the counter's time is up, normal standby mode is returned.

* If TV Guide On Screen's "Auto Guide" is "on", set this setting to "off" before starting the procedure.

If this setting is left "on", Service Factory mode will not be on.

Operation in Service Factory mode

Functions whose settings are set to OFF

The settings for the following functions are set to OFF when Service Factory mode is entered (including when the "FAY" command is received):

- Two-screen operations (input function set on the main side is selected)
- P ZOOM
- STILL
- Detection of the TRAP switch (The log in the EEPROM is retained.)

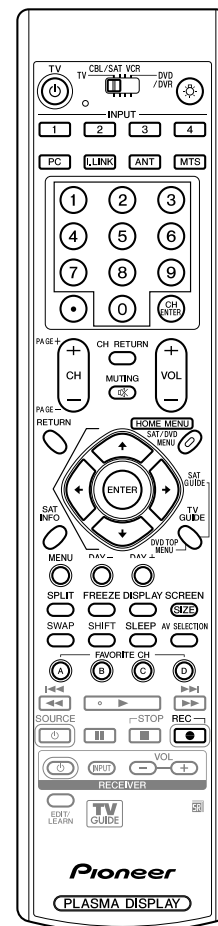
User data

User data will be treated as follows:

- User data on picture- and audio-quality adjustments are not reflected, and factory-preset data are output (user data will be retained in memory). When the unit enters Factory mode, the current audio-quality adjustment data will still be retained in memory.
- As to data on various settings, user data will be applied to the items that are associated with signal format change (screen-size switching, etc.).
- Data on screen (i.e., screen position; meaning clock dividers, and not including data on screen size) are reset to the default values (data stored in memory will be retained). Screen size will be retained.

Remote control codes in Service Factory mode

SR Function	Main Function	Remarks
Muting	Switching the main items	Shifting to the next main item (top)
DOWN	Switching the subtitled items	Shifting downward to the next subtitled item
UP	Switching the subtitled items	Shifting upward to the next upper layer
RIGHT	Decreasing the adjustment value	Decreasing the adjustment value
LEFT	Increasing the adjustment value	Increasing the adjustment value
SET	Switching layers	Shifting downward or upward to the next lower or upper layer
INPUT	Selecting input	Shifting the input to the next function
INPUTxx	Selecting input	Switching the input to xx
CH+	Increasing the channel number	Advancing a preset channel (effective when Function is set to TV)
CH-	Decreasing the channel number	Turning a preset channel backward (effective when Function is set to TV)
Numeric keys	Function: TV	Function: TV (previously selected channel number is selected)
POWER	Power OFF	Turning the power off
FACTORY	Factory OFF	Turning Service Factory mode off
MENU	Menu ON	Turning Service Factory mode off and Menu mode on



A

Changes of the Service Factory menus

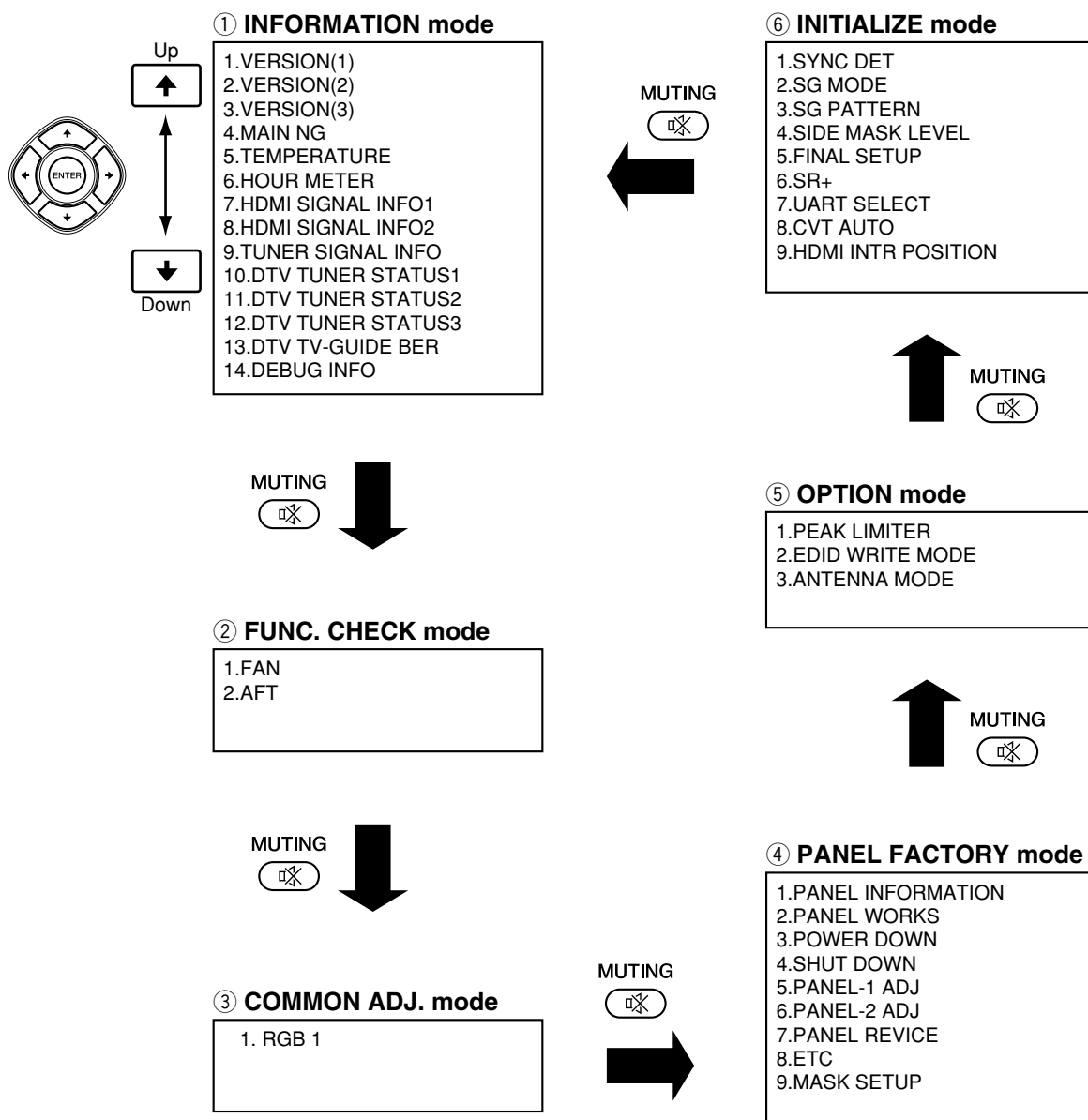
B

C

D

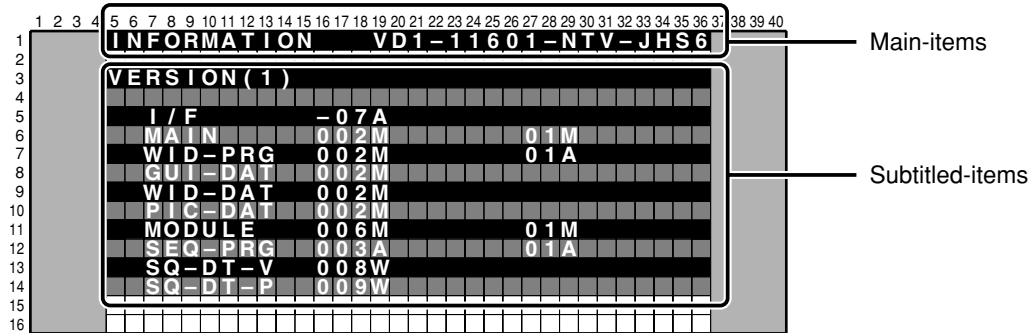
E

F



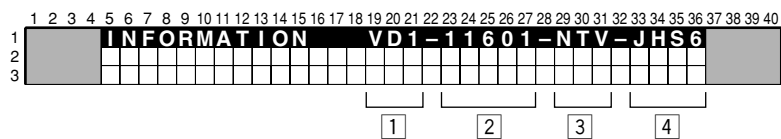
Note: Details of the Panel Factory Mode, refer to the Panel's service manual.

■ Indications in Service Factory mode



■ Main-item indications

Four parameters are displayed:



1 Input function

Input Functions	On-Screen Display
VIDEO 1- 4	VD 1 - 4
Terrestrial Wave A	ARA
Terrestrial Wave B	ARB
Cable A	CBA
Cable B	CBB
PC	PC
PC Card	PCC

4 Option (Destination, Panel Generation, etc.)

Options	On-Screen Display
HD system in North America (Regular)	ATS6
HD system in North America (ELITE)	AHS6

2 SIG mode and screen size

Note: See SIG-Mode Tables. (See next page.)

3 Color system and signal type

Color System and Signal Type		On-Screen Display
NTSC	Composite input	NTV
	S-connector input	NTS
Y / CB / CR		CBR
Y / PB / PR		PBR
RGB		RGB
Digital video signal		DIG

A

● SIG-Mode and Screen Size (by User is displayed)

1st and 2nd charecters : SIG-Mode (resolution)

3rd and 4th charecters : SIG-Mode (refresh rate)

5th charecter : Setting of the screen size that user configured.

B

SIG-Mode table for video signals (resolutions and V frequencies)

1st - 4th Character		Signal Type	Vertical Frequency Fv (Hz)	Horizontal Frequency Fh (kHz)
10	60	SDTV*525i	60.000	15.750
20	60	SDTV*525p	60.000	31.500
30	60	HDTV*1125i	60.000	33.750
40	60	HDTV*750p	60.000	45.000

C

SIG-Mode table for PC signals (resolutions and V frequencies)

1st - 4th Character		Signal Type	Vertical Frequency Fv (Hz)	Horizontal Frequency Fh (kHz)
C1	70	720x400	70.087	31.469
C2	60	640x480	59.940	31.469
	72		72.809	37.861
	75		75.000	37.500
C4	56	800x600	56.250	35.1556
	60		60.317	37.879
	72		72.188	48.077
	75		75.000	46.875
C7	60	1024x768	60.004	48.363
	70		70.069	56.476
	75		75.029	60.023
C8	56	1280x768	56.250	45.113
	60		59.833	47.986
	70		70.000	56.137

D

Selection of the screen size by the user is displayed.

5th Character	GUI Notation	VIDEO	PC	Remarks
0	DOT BY DOT	—	●	
1	4:3	●	●	
2	FULL(FULL1)	●	●	
3	ZOOM	●	—	
4	CINEMA	●	—	
5	WIDE	●	—	
8	FULL2	●	●	

E

●: supported, —: unsupported

F

■ Service Factory Menus

① INFORMATION mode

● Operation items

No.	Function / Display	Context	RS-232C
1	VERSION (1)	The flash memory versions for each device are displayed. (common part)	QS1
2	VERSION (2)	The flash memory versions for each device are displayed. (individual part)	QS6
3	VERSION (3)	The flash memory versions for each device are displayed. (individual part)	QS6
4	MAIN NG	The shutdown generated on Media Receiver side and its time of occurrence are displayed.	QNG
5	TEMPERATURE	The information of temperature and fan status on Media Receiver side is displayed.	QMT
6	HOUR METER	The Cumulative power-on time to the Media Receiver is displayed.	—
7	HDMI SIGNAL INFO 1	The file information of HDMI series are displayed.	—
8	HDMI SIGNAL INFO 2	The file information of HDMI series are displayed.	—
9	TUNER SIGNAL INFO	The signal information on TUNER is displayed.	—
10	DTV TUNING STATUS 1	Digital broadcast information and status is displayed upon receiving digital broadcast signal.	—
11	DTV TUNING STATUS 2	Digital broadcast information and status is displayed upon receiving digital broadcast signal.	—
12	DTV TUNING STATUS 3	Digital broadcast information and status is displayed upon receiving digital broadcast signal.	—
13	DTV TV-GUIDE BER	TV-Guide Bit Error Rate Information.	—
14	DEBUG INFO	Debug Information.	—

1. VERSION (1)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40						
1	I N F O R M A T I O N															V D 1 - 1 1 6 0 1 - N T V - J H S 6																													
2	V E R S I O N (1)																																												
3																																													
4																																													
5	I / F															- 0 7 A																													
6	M A I N															0 0 2 M															K L D										0 1 M				
7	W I D - P R G															0 0 2 M																									0 1 A				
8	G U I - D A T															0 0 2 M																													
9	W I D - D A T															0 0 2 M																													
10	P I C - D A T															0 0 2 M																													
11	M O D U L E															0 0 6 M																									0 1 M				
12	S E Q - P R G															0 0 3 A																									0 1 A				
13	S Q - D T - V															0 0 8 W																													
14	S Q - D T - P															0 0 9 W																													
15																																													
16																																													

Flash memory on Device	On-Screen Display
IF microcomputer	I/F
Main microcomputer	MAIN
Program for CARRERA-MANTA	WID-PRG
GUI data for CARRERA-MANTA	GUI-DAT
Enhanced data for CARRERA-MANTA.	WID-DAT
Picture Quality data for CARRERA-MANTA	PIC-DAT
Module microcomputer (for the PDP)	MODULE
Program for ASTRA-MANTA (for the PDP)	SEQ-PRG
Sequence data for ASTRA-MANTA Video	SQ-DT-V
Sequence data for ASTRA-MANTA PC	SQ-DT-P

A

2. VERSION (2)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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B

Flash Device	On - Screen Display	Version Display	Elite	Regular
DTV Hardware Version	HARDWARE	8 character	O	O
DTV Hardware Serial	SERIAL	8 character	O	O
DTV Runtime Version	RUNTIME	8 character	O	O
CFE Version	CFE	8 character	O	O
KERNEL Version	KERNEL	8 character	O	O
ROOTFS Version	ROOTFS	8 character	O	O
FLAGS	FLAGS	5 character	O	O

C

3. VERSION (3)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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D

Flash Device	On - Screen Display	Version Display	Elite	Regular
CCD-UCOM Version	CCD	4 character	O	O
CARD Version	CARD	8 character	O	×
User Password	PASSWORD	4 character	O	O

E

F

4. MAIN NG

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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● Media Receiver NG information

OSD: MAIN	OSD: SUB	Cause of Shutdown
MODULE	----	Failure of communication to Module microcomputer
MA-SRL		3-wire Serial Communication of Main microcomputer.
	IF	Communication failure of IF microcomputer
	MULTI1	MANTA communication failure (MULTI1)
	I/P	MANTA communication failure (I/P)
	D-SEL	MANTA communication failure (D-SEL)
MA-IIC		IIC communication failure of Main microcomputer
	FE1	Analog Tuner 1 (Front End 1)
	FE2	Analog Tuner 2 (Front End 2)
	MPX	MPX
	AV-SW	AV Switch
	RGB-SW	RGB Switch
	CCD	CCD
	GCR	GCR
	M-VDEC	Main VDEC
	ADC	AD/PLL
	HDMI	HDMI
	PLK-T	TMDS Tx
	PLK-R	TMDS Rx
	MA-EEP	64k EEPROM
MAIN		Communication failure of Main microcomputer and Unknown Error
FAN		Fan stopped
TEMP2		Abnormally high temperature at MR.
DTUNER		Failure of Digital Tuner
	PS/RST	Failure to DTB Starting
	DEVICE	DTB Device Error
	TV-G	TV-Guide Error
M-DCDC		Abnormally in RST2 of MR (power decrease of DC-DC converter)
HOME-G		Failure at Home Gallery
	CD-COM	Failure of PC Card Communication
	CD-DEV	Failure of PC Card
	CD-RST	PC Card Reset NG

A

5. TEMPERATURE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
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Displays the temperature and FAN speed of the Media Receiver.

TEMP2 : Displays the value from 000 to 255 of the readout data from the Media Receiver's built-in heat sensor.

FAN : The value of the Fan output is displayed.

Either STOP, MIN, MAX is displayed.

STOP: FAN stop, MIN: FAN Speed Low, MAX: FAN Speed High

C

6. HOUR METER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
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- Displays the total time of power that the Media Receiver has been turned ON.

- Main microcomputer's memory timing is every one hour while the power is turned ON, when power is turned OFF, when PD/SD occurs.

E

F

8. HDMI SIGNAL INFO 2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1	INFORMATION																VD1-11601-NTV-JHS6																							
2	HDMI SIGNAL INFO 2																																							
3																																								
4																																								
5	0x60																-3A:00				0x68												-06:00							
6																	-3B:00																-07:00							
7																	-3C:00																-08:00							
8																	-3D:00																-0C:00							
9																																	-0D:00							
10																																	-0E:00							
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- Displays the input signal information of HDMI terminal

HDMI SIGNAL INFO 2		
SA		Context
0x60	- 3A:	Video information: valid horizontal pixel numbers (low order bit)
	- 3B:	Video information: valid horizontal pixel numbers (high order bit)
	- 3C:	Video information: valid vertical line numbers (low order bit)
	- 3D:	Video information: valid vertical line numbers (high order bit)
0x68	- 06:	Audio information: information for audio clock playback
	- 07:	
	- 08:	
	- 0C:	
	- 0D:	
	- 0E:	

9. TUNER SIGNAL INFO

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
2	INFORMATION																VD1-11601-NTV-AHS6																							
3	TUNER SIGNAL INFO																																							
4																																								
5	MVDEC -00:00																MVDEC -1D:00																							
6	-01:00																																							
7	-02:00																																							
8	-15:00																																							
9	-16:00																																							
10	-17:00																																							
11	-18:00																																							
12	-19:00																																							
13	-1A:00																																							
14																																								
15																																								
16																																								

- Displays input signal status of MVDEC terminal

Device	SA	Context
MVDEC	00h	Signal distinct result 1
	01h	Signal distinct result 2
	02h	Flag detection output
	15h	Noise level distinction 1
	16h	Noise level distinction 2
	17h	Non-standard evaluation out
	18h	Subcarrier signal detection
	19h	ACC data output
	1Ah	ACC processed information output
	1Dh	Input signal mode setting

10. DTV TUNING STATUS 1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1																																							
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11. DTV TUNING STATUS 2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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12. DTV TUNING STATUS 3

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
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Displays digital broadcast signal information and status upon receiving digital signal.

13. DTV TV-GUIDE BER

Exclusively used for production line. TV-Guide error bit ratio information is displayed.

14. DEBUG INFO

Exclusively used for technical analysis. Debug information for development use is displayed.

A

② FUNC. CHECK (Function Check) mode

● Operation items

No.	Display	Content	RS-232C
1	FAN <=>	Forces the setting of FAN speed.	—
2	AFT <=>	Controls AFT action by turning ON/OFF.	—

B

③ COMMON ADJ. mode

1. RGB1

Exclusively used for technical analysis (details omitted).

C

D

E

F

⑥ INITIALIZE mode

● Operation items

No.	Function/Display	Content	RS-232C
1	SYNC DET(+)	Exclusively used for technical analysis.	—
2	SG MODE ⇔	Paired SG_MODE with SG_PATTERN. Select SG Route.	—
3	SG PATTERN ⇔	Paired SG_MODE with SG_PATTERN. Select SG Pattern.	—
4	SIDE MASK LEVEL(+)	Configure the color of the side mask.	BSL GSL RSL
5	FINAL SETUP(+)	Initialize flash memorys on default product status	FST
6	SR+ ⇔	Select SR+ mode or UART SELECT mode.	—
7	UART SELECT ⇔	Select baud Rate on RS-232C Communication	—
8	CVT AUTO ⇔	Exclusively used for technical analysis.	—
9	HDMI INTR POSITION(+)	Exclusively used for technical analysis.	—

1. SYNC DET(+)

Exclusively used for technical analysis (details omitted).

2. SG MODE

SG MODE (SG's route selection)/SG PATTERN (signal pattern selection) are used as pair.

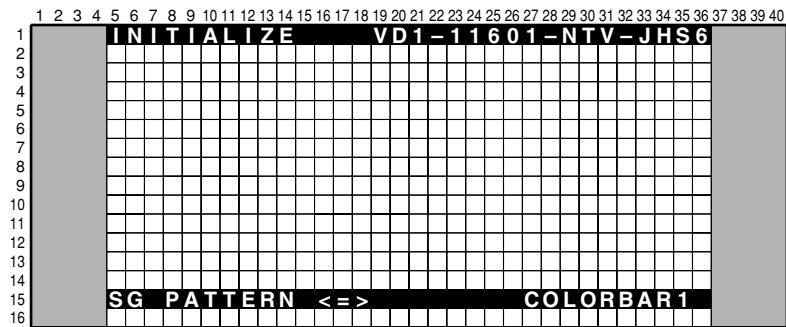
In SG MODE, select the SG route and then select the SG pattern to be sent by the selected route.

In SG MODE, make sure to select the route first.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
1	INITIALIZE																VD1-11601-NTV-JHS6																							
2																																								
3																																								
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10																																								
11																																								
12																																								
13																																								
14																																								
15	SG MODE <=>																ANA-MVDEC-Y																							
16																																								

No.	Display	Content
1	SG OFF	SG Mode is OFF.
2	DIG MVDEC YBCr	MAIN VDEC: YCbCr (Digital output mode)
3	ANA MVDEC YBCr	MAIN VDEC: YCbCr (Analog output mode)
4	ANA MVDEC Y	MAIN VDEC: Y (Analog output mode: SG VDEC return setting)
5	ANA AD YBCr	AD: YCbCr
6	ANA AD RGB	AD: RGB

3. SG PATTERN



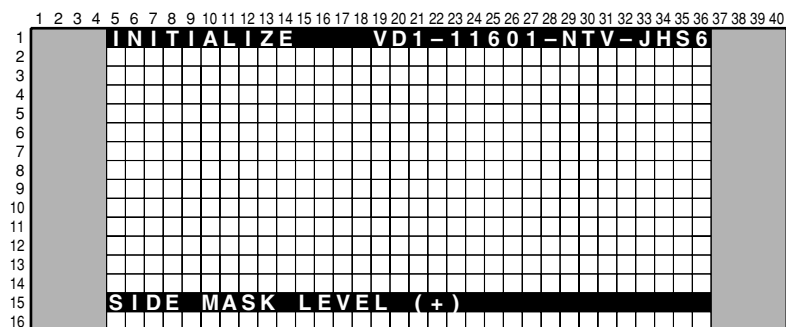
No.	Function/Display	SG Pattern (Brightness IRE Level/Color)	No.	Function/Display	SG Pattern (Brightness IRE Level/Color)
1	COLOR BAR1	Colorbar (75%)	11	RASTER4	Raster (75% Green)
2	COLOR BAR2	Colorbar (100%)	12	RASTER5	Raster (75% Magenta)
3	RAMP1	Ramp (100% White)	13	RASTER6	Raster (75% Red)
4	RAMP2	Ramp (100% Yellow)	14	RASTER7	Raster (75% Blue)
5	RAMP3	Ramp (75% Green)	15	RASTER8	Raster (-% Black)
6	RAMP4	Ramp (75% Red)	16	10STEP1	10STEP (100% White)
7	RAMP5	Ramp (75% Blue)	17	10STEP2	10STEP (100% Yellow)
8	RASTER1	Raster (100% White)	18	10STEP3	10STEP (75% Green)
9	RASTER2	Raster (75% Yellow)	19	10STEP4	10STEP (75% Red)
10	RASTER3	Raster (75% Cyanide)	20	10STEP5	10STEP (75% Blue)

Notes when using SG MODE/SG PATTERN

- During factory mode, choose the correct route when changing.
- Basically, during VDEC SG output, make sure to connect SG output's Y or G to the AVI input terminal of VDEC.
- During SG MODE, turn off the blanking 50IRE setup function.
- During VDEC SG output, set the YC separation setting to NTSC.
- It is possible to use ANALOG OUT MODE together during DIGITAL OUT MODE.
The Main VDEC can output digital color difference, in which colors will appear. But the route to VDEC input cannot be analysed therefore care should be taken when using. Depending on the situation, please use the proper analog/digital output.
- The SG MODE outputs color difference and RGB only. Therefore, in the case of CVBS, only the Y input is used resulting in no color. This is not a damage result nor error.
- The SG MODE's ANA AD RGB (route to input 525i to AD by RGB) as a set's route, the setting does not exist.
For this account the latter part from MVDEC does not have set values, resulting in having funny colors in colorbar, the brightness changes after switching, etc.
This is not a damage result nor error.
- Depending on MVDEC's part version, ANA_MVDEC_YCBCR may not display colors.

A

4. SIDE MASK LEVEL



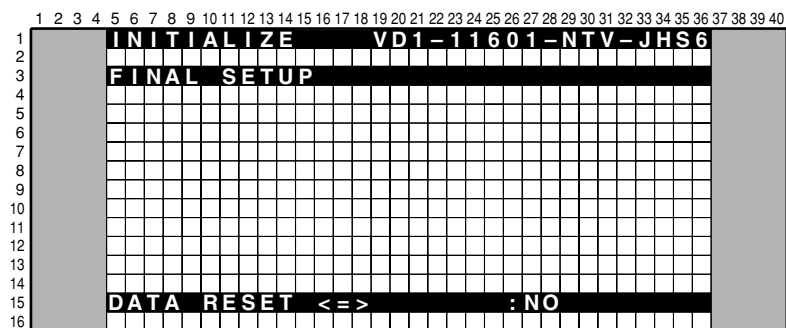
B

To configure sidemask's R, G, B level (To adjust the values, input signal is required).

No.	Display	Content	RS-232C
1	R MASK LEVEL ⇄	Adjust Side Mask R (Adjustable range: 000-255)	RSL
2	G MASK LEVEL ⇄	Adjust Side Mask G (Adjustable range: 000-255)	GSL
3	B MASK LEVEL ⇄	Adjust Side Mask B (Adjustable range: 000-255)	BSL

C

5. FINAL SETUP



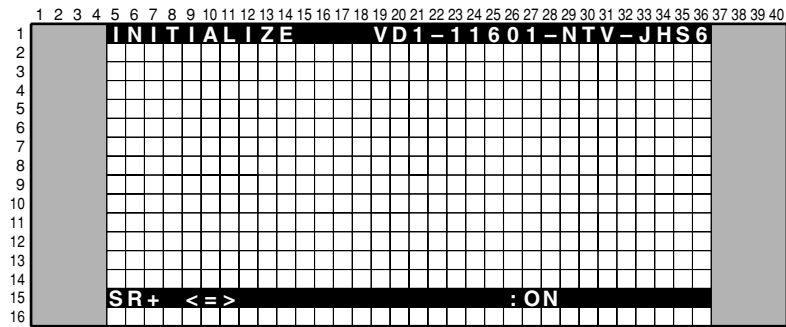
D

To reset each memory value to factory default values. Factory command is "FST".
 When the configuration is set to <NO> and the [SET] key is pressed, no action is taken and the menu returns to previous screen.
 When the configuration is set to <YES> and the [SET] key is pressed for 5 seconds, the reset action executes.

E

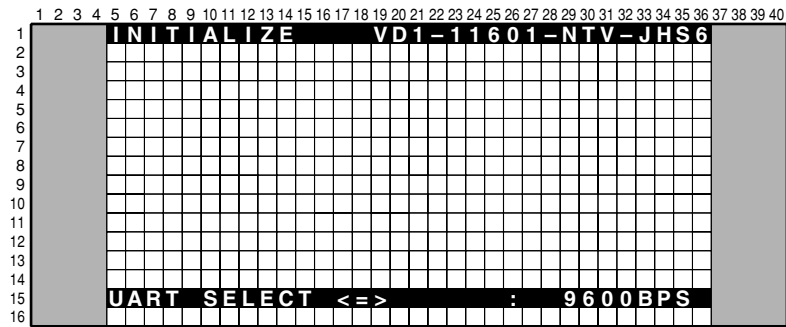
F

6. SR+



To use SR+, select ON. To use RS-232C, select OFF.

7. UART SELECT



When SR+ is OFF, UART SELECT can be selected.

When SR+ is ON, UART SELECT cannot be selected.

Option No.	Display	Operation / Control	RS-232C
1 (Initial setting)	----	To Set to SR+ (9600bps)	SR+ is ON
2	1200	To Set to RS-232C (1200bps)	SR+ is OFF
3	2400	To Set to RS-232C (2400bps)	SR+ is OFF
4	4800	To Set to RS-232C (4800bps)	SR+ is OFF
5	9600	To Set to RS-232C (9600bps)	SR+ is OFF
6	19200	To Set to RS-232C (19200bps)	SR+ is OFF
7	38400	To Set to RS-232C (38400bps)	SR+ is OFF

8. CVT AUTO

Exclusively used for technical analysis (details omitted).

9. HDMI INTR POSITION (+)

Exclusively used for technical analysis (details omitted).

6.7 LIST OF RS-232C COMMANDS

RS-232C commands can be used in Service Factory mode. Before using RS-232C commands, it is necessary to change the factory presetting. See "6.2 USING RS-232C COMMANDS."
Also the RS-232C commands for the panel is not listed. Please refer to panel's service manual.

Command	Operation	Remarks
B		
BSL	Adjust side mask B	
C		
CNG	Clearing MR NG information	
CHR	Clearing MR Hour meter	
CTM	Clearing the modification log	
D		
DW*	Decreasing the adjustment value by*	*:1-9, 0 (0 means 10), F (making the adjustment value the minimum)
F		
FAN	Turning Service Factory mode off.	
FAY	Turning Service Factory mode on.	
C		
FST	Final Set Up	
G		
GSL	Adjusting side mask G	
I		
INA*****##	Selection of tuner for digital signals (Antenna A) and terrestrial analog signals (Antenna A)	***** = Major Channel Number ### = Minor Channel Number
INA***	Selection of tuner for terrestrial analog signals (Antenna A)	*** = Channel Number
INB***	Selection of tuner for terrestrial analog signals (Antenna B)	*** = Channel Number Cable: 1-125ch, Air: 2-69ch
ING	Selection of iLink input functions	
INH	Selection of Home Gallery input functions	Elite Mode only
INPS01	Input selection: input 1	
INPS02	Input selection: input 2	
INPS03	Input selection: input 3	
INPS04	Input selection: input 4	
INPS05	Input selection: input 5	
O		
OSDS00	Turning On-Screen Display ON	Prohibit On-Screen Display.
OSDS01	Turning On-Screen Display OFF	Permit On-Screen Display.
P		
POF	Turning the power off.	
PON	Turning the power on.	
Q		
QS1	Obtaining the version data for each device.	
QS6	Obtaining the any version.	
QMT	Obtaining the MR temperature information.	
QNG	Obtaining NG data of the MR.	
R		
RSL	Adjust side mask R	
T		
TSN	Disable the TRAP switch	
TSY	Enable the TRAP switch	
U		
UP*	Increasing the adjustment value by *	*:1-9, 0 (0 means 10), F (making the adjustment value the maximum)
Z		
ZME	Initialize video EEPROM data	

6.8 OUTLINE OF COMMANDS

QS1: Returning information on the module and the version of the software.

Order	Part	Data Content	Size	Remarks
0	-	Received Command Name on MR	3 byte	'QS1' only
1	MDU	Display Information 1	1 byte	
2		Display Information 2	1 byte	
3		Display Information 3	1 byte	
4		Display Information 4	1 byte	
5		Display Information 5	1 byte	
6		Boot Version of Module microcomputer.	3 byte	
7		Program Version of Module microcomputer.	8 byte	
8		Boot Version of ASTRA-MANTA	3 byte	
9		Program Version of ASTRA-MANTA	8 byte	
10		Sequence Version (43VIDEO)	4 byte	
11		Sequence Version (43PC)	4 byte	
12		Sequence Version (50VIDEO)	4 byte	
13		Sequence Version (50PC)	4 byte	
14	MR	, (comma)	1 byte	
15		MR Infomation 1	1 byte	
16		MR Infomation 2	1 byte	
17		MR Infomation 3	1 byte	
18		MR Infomation 4	1 byte	
19		Version of IF microcomputer	4 byte	
20		Version of Main microcomputer	8 byte	
21		Boot Version of Main microcomputer	4 byte	
22		Program Version of CARRERA-MANTA	8 byte	
23		Boot Version of CARRERA-MANTA	4 byte	
24		GUI Version of CARRERA-MANTA	8 byte	
25		Enhanced Version of CARRERA-MANTA	8 byte	
26		PIC Version of CARRERA-MANTA	8 byte	

QS6: Returning information of the Flash Device.

Order	Data Content	Size	Remarks
0	Received Command Name on MR	3 byte	'QS6' only
1	Hardware Version of DTV	8 byte	
2	Hardware Serial of DTV	8 byte	
3	Runtime Version of DTV	8 byte	
4	CFE Version	8 byte	
5	KERNEL Version	8 byte	
6	ROOTFS Version	8 byte	
7	FLAGS Information 1 (H/W: 'Y' or 'N')	1 byte	
8	FLAGS Information 2 (1394: 'Y' or 'N')	1 byte	
9	FLAGS Information 3 (DVR: 'Y' or 'N')	1 byte	
10	FLAGS Information 4 (FONTS: 'Y' or 'N')	1 byte	
11	FLAGS Information 5 (DFAST: 'Y' or 'N')	1 byte	
12	Version of CCD-UCOM	4 byte	
13	Version of PC-CARD	8 byte	
14	User Password	4 byte	

A

QMT: Returning information of MR temperature and FAN speed.

Order	Data Content	Size	Remark
0	Received Command Name on MR	3 byte	'QMT' only
1	MR Temperature	3 byte	
2	MR FAN Speed	1 byte	0: STOP 1: MIN 2: MAX

QNG: Returning data (logs keep on Main microcomputer) on shutdown of Media Receiver.

B

Order	Data	Size	Context
0	Received Command Name on MR	3 byte	'QNG' only
1	Latest NG data	1 byte	
2	Data of subcategory for the latest NG	1 byte	
3	Data of MR hour meter for the latest NG	7 byte	
4	Data of temperature for the latest NG	3 byte	
5	2nd latest NG data	1 byte	
6	Data of subcategory for the 2nd latest NG	1 byte	
7	Data of MR hour meter for the 2nd latest NG	7 byte	
8	Data of temperature for the 2nd latest NG	3 byte	
:	:	:	
29	8th latest NG data	1 byte	
30	Data of subcategory for the 7th latest NG	1 byte	
31	Data of MR hour meter for the 7th latest NG	7 byte	
32	Data of temperature for the 7th latest NG	3 byte	

C

• Details of Data and subcategory

Data	Cause of Shutdown	Remarks
0	Normal	
1	Failure of communication to Module microcomputer	
2	3-wire Serial Communication of Main microcomputer.	Subcategory ⇒ 1
3	IIC Communication failure of Main microcomputer	Subcategory ⇒ 2
4	Communication failure of Main microcomputer & Unknown Error	
5	Fan stopped	
6	Abnormally high temperature at MR.	
7	Failure of Digital Tuner	Subcategory ⇒ 3
8	Abnormally in RST2 of MR (power decrease of DC-DC converter)	
9	Failure at Home Gallery	Subcategory ⇒ 4

D

• Data on Subcategories for failure in 3-wire serial communication of Main microcomputer (subcategory 1)

Data	Cause of Shutdown	Remarks
0	Non subcategory	
1	Communication failure of IF microcomputer	Power OFF
2	MANTA communication failure (MULIT1)	Power OFF
4	MANTA communication failure (I/P)	
5	MANTA communication failure (D-SEL)	

F

• Data on Subcategories for failure in IIC communication of Main microcomputer (subcategory 2)

Data	Cause of Shutdown	Data	Cause of Shutdown
0	Non subcategory	A	AD/PLL
1	Analog Tuner 1 (Front End 1)	B	HDMI
2	Analog Tuner 2 (Front End 2)	C	TMDS Tx
3	MPX	D	TMDS Rx
4	AV Switch	E	M2 Communication
5	RGB Switch	F	M2 Busy
6	CCD	G	64k EEPROM
7	GCR		
8	Main VDEC		
9	Sub VDEC		

• Data on Subcategories for failure in DTB communication of Main microcomputer (subcategory 3)

Data	Cause of Shutdown	Remarks
0	Non subcategory	
1	Failure to DTB Starting	
2	Communication failure to DTB	
3	DTB Device Error	
4	TV-Guide Error	

• Data on Subcategories for failure at Home Gallery (subcategory 4)

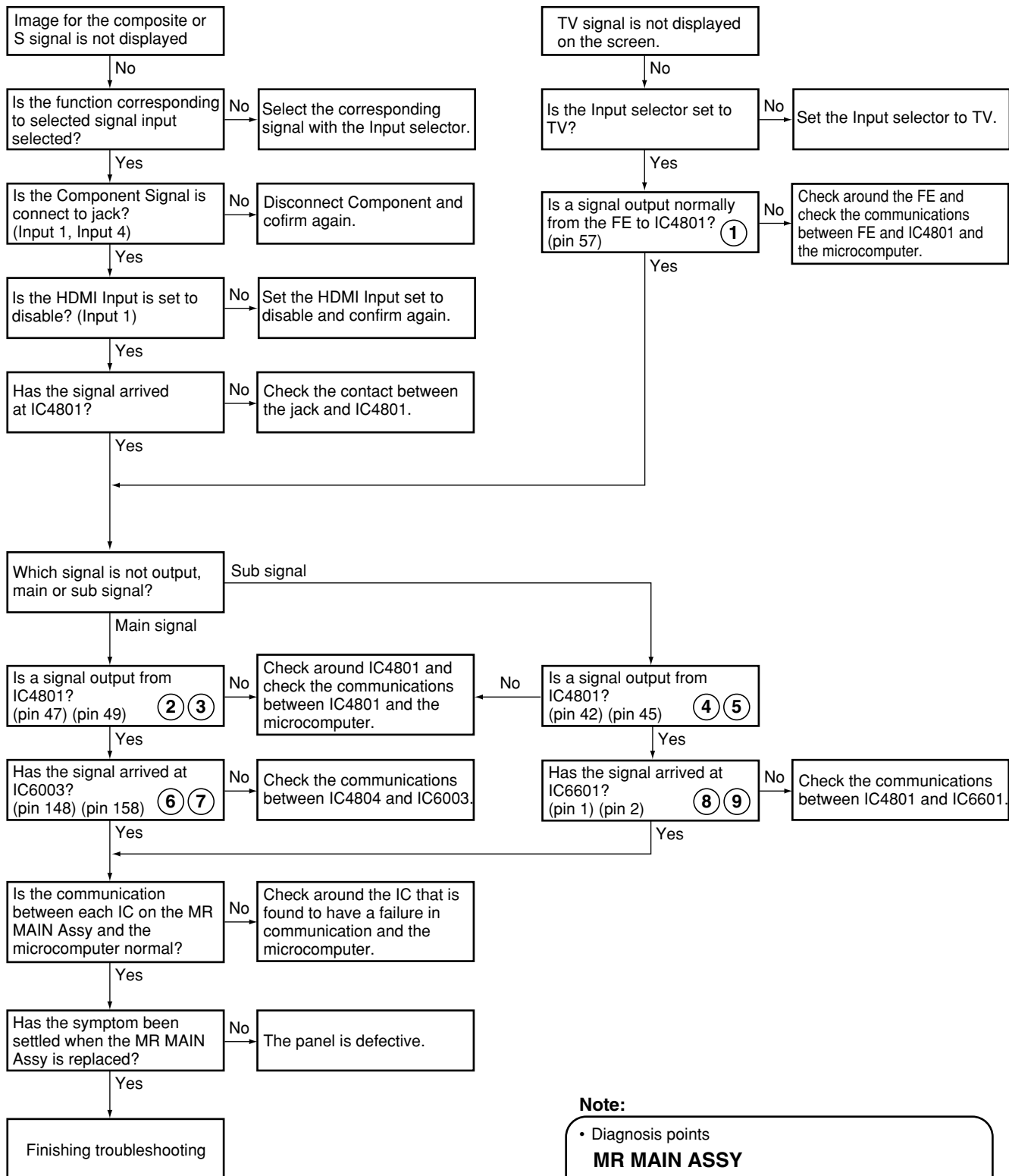
Data	Cause of Shutdown	Remarks
0	Non subcategory	
1	Failure of PC Card Communication	
2	Failure of PC Card	
3	PC Card Reset NG	

7. GENERAL INFORMATION

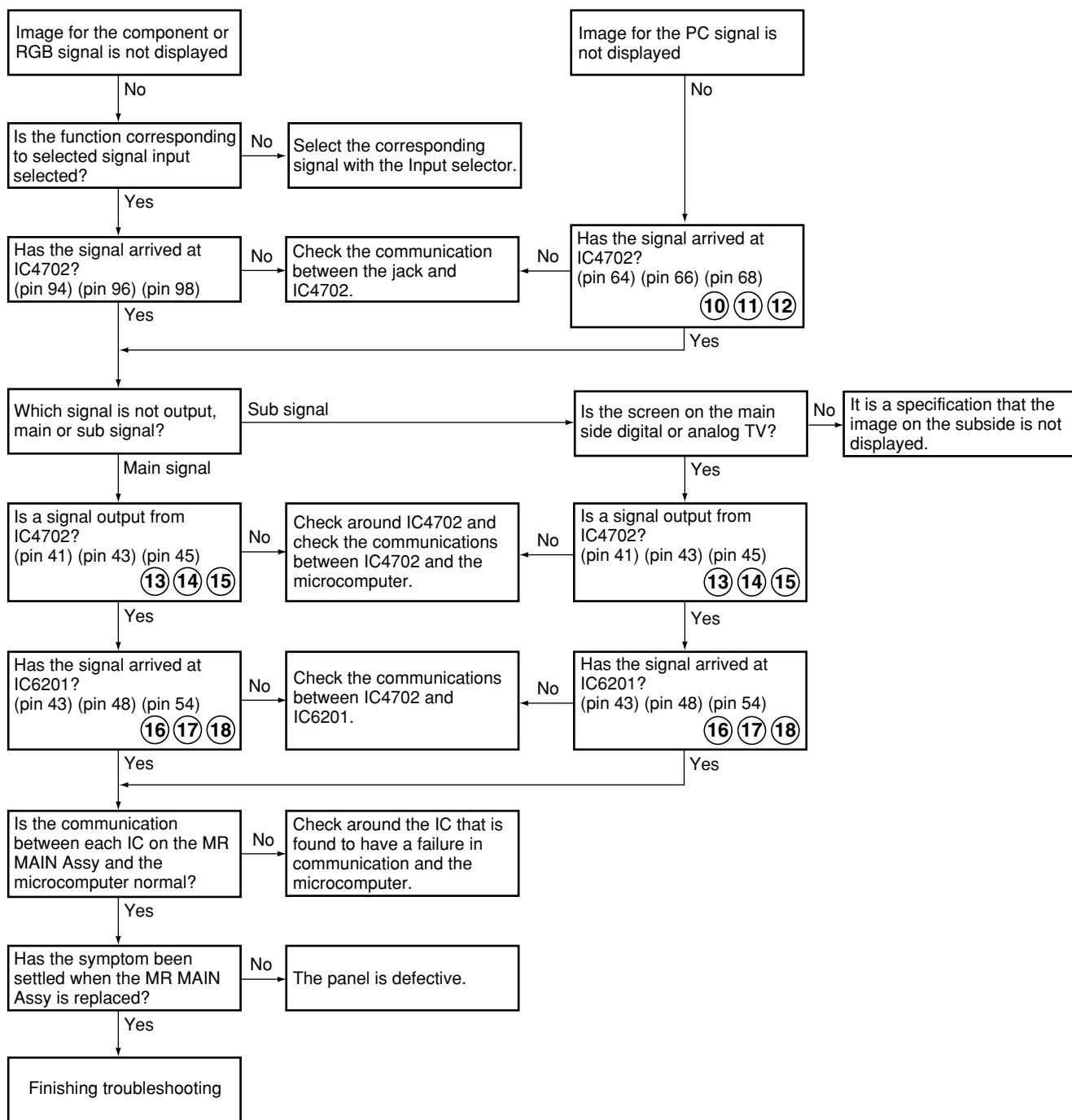
7.1 DIAGNOSIS

7.1.1 TROUBLESHOOTING

● Image for the composite or S or TV signal is not displayed



● Image for the component or RGB or PC signal is not displayed



A

● The image of the PC card doesn't come out

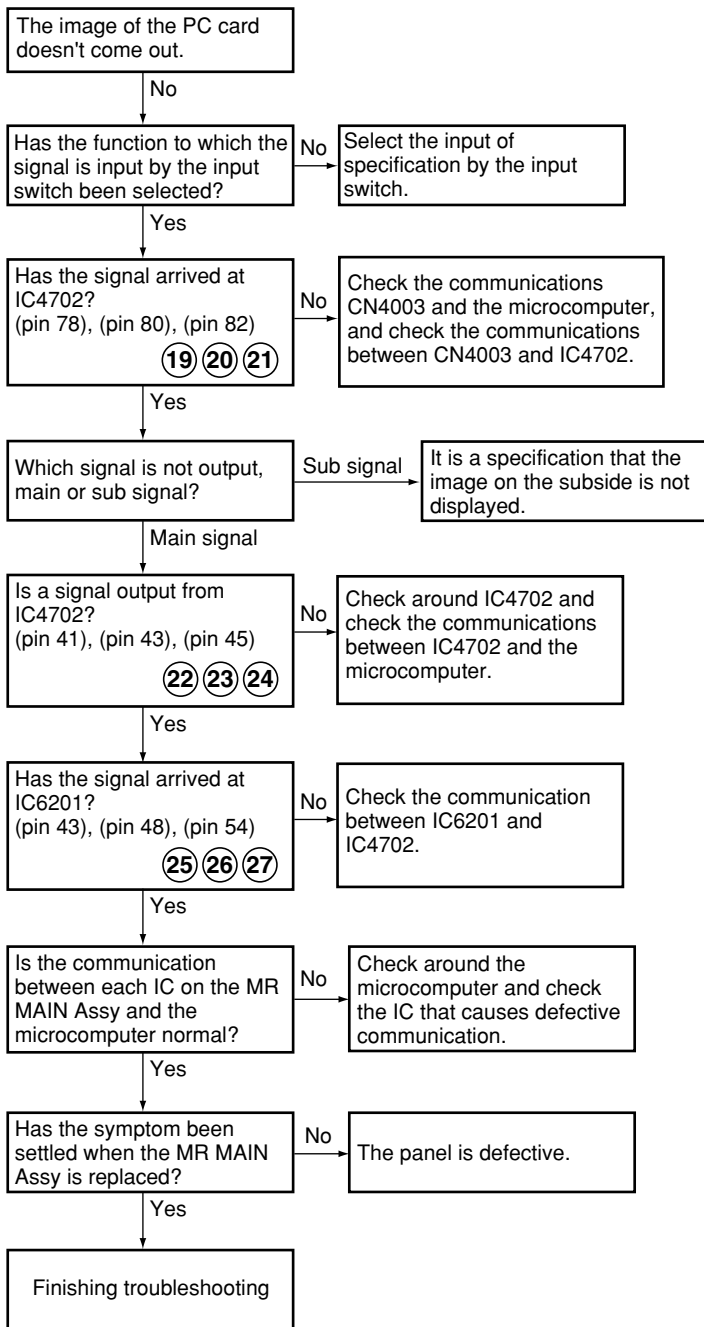
B

C

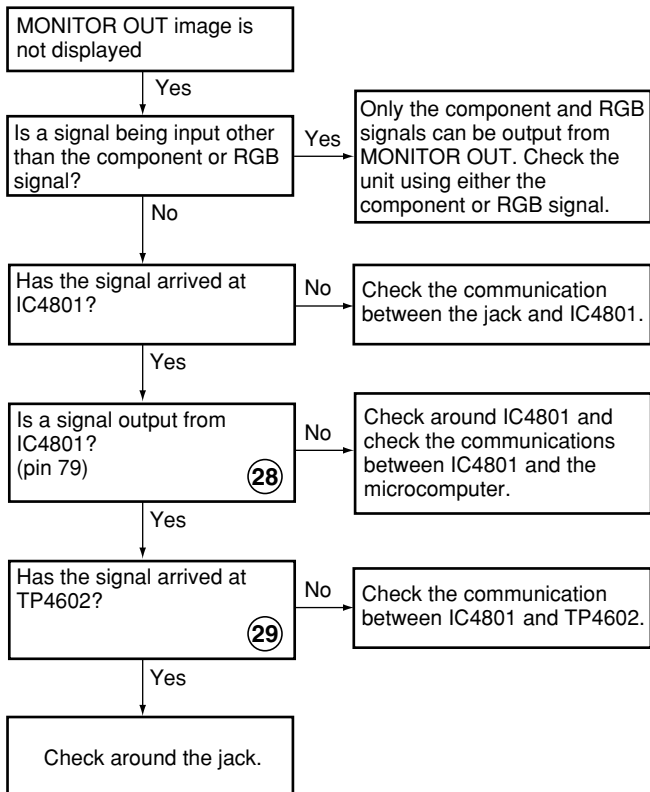
D

E

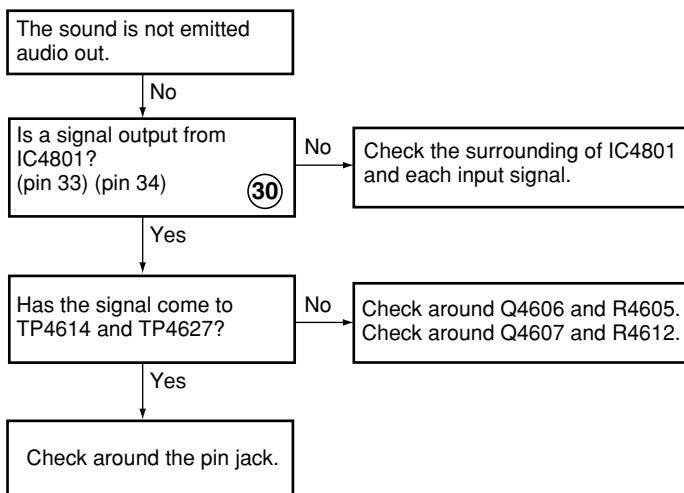
F



● MONITOR OUT image is not displayed



● The sound is not emitted audio out



● No sound from the speakers

A

No sound from the speakers

Yes

Is sound muting set?

Yes

Cancel muting then check again.

No

Is the volume set to "0"?

Yes

Raise the volume then check again.

No

B

Is it the only TV sound that doesn't come out?

No

Is it only the FRONT input sound that doesn't come out?

No

Is the flexible cable between CN4001 and CN7804 connected normal?

Yes

Connect Flexible cable, then check again.

No

Is a signal input to IC4801? (pin 25), (pin 26)

Yes

Is it only HDMI sound that doesn't come out?

No

Is a signal output from IC6405? (pin 7), (pin 8)

No

Check around IC6405 and check the communication between IC6405 and the microcomputer.

Yes

Is a signal input to IC4801? (pin 10), (pin 11)

No

Check the communication between IC6405 and IC4801.

Yes

Is it the only input REAR input analog sound that doesn't come out?

Yes

Is a signals input to IC4801?

No

Check the communication between the jack and IC4801.

Yes

C

Is a signal input to IC4401? (pin 1), (pin 3)

No

Check the communications around the FE (U4401 or U4402) and between the FE (U4401 or U4402) and the microcomputer.

Yes

Is a signal input to IC4402? (pin 7)

No

Check around IC4402 and check the communications between IC4402 and the FE.

Yes

Is a signal output from IC4402? (pin 22), (pin 23)

No

Check the communications around the IC4402 and between the IC4402 and the microcomputer.

Yes

Is a signal input to IC4801? (pin 19), (pin 20)

No

Check the communication between IC4402 and IC4801.

Yes

Is a signal output from IC4801? (pin 35), (pin 36)

No

Check around IC4801 and check the communications between IC4801 and the microcomputer.

Yes

Is a signal output from CN4005? (pin 35), (pin 36)

No

Check the communication between CN4005 and CN1402.

Yes

Has the signal come to CN7201? (pin 13), (pin 20)

No

Check the communication between CN7201 and IC4801.

Yes

Has the symptom been settled when the system cable is replaced?

No

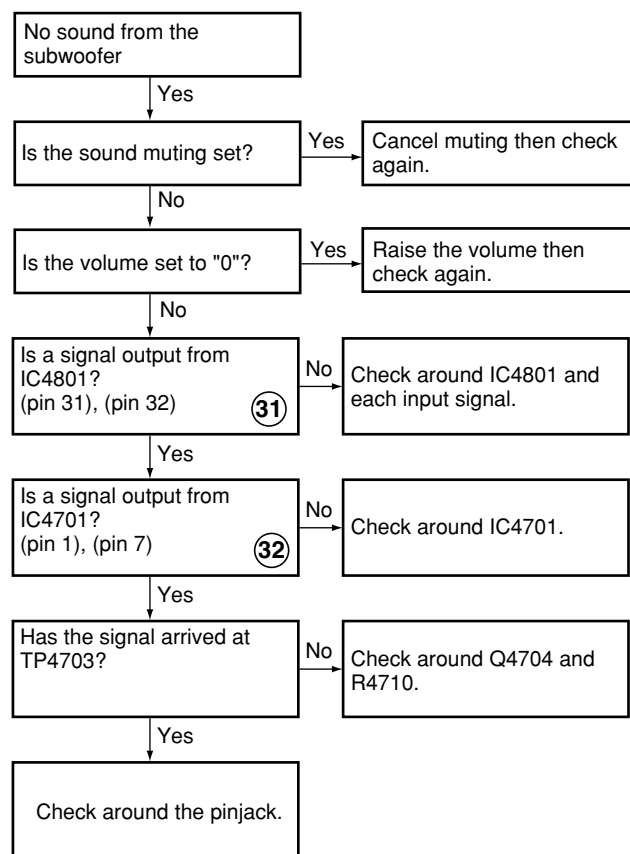
The panel is defective.

Yes

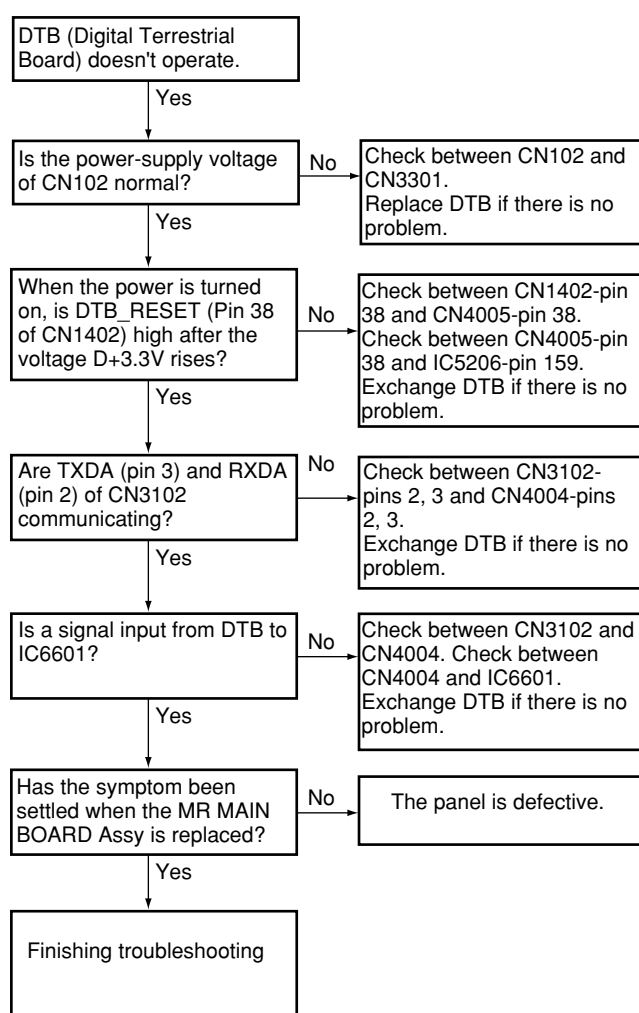
F

Finishing troubleshooting

● No sound from the subwoofer



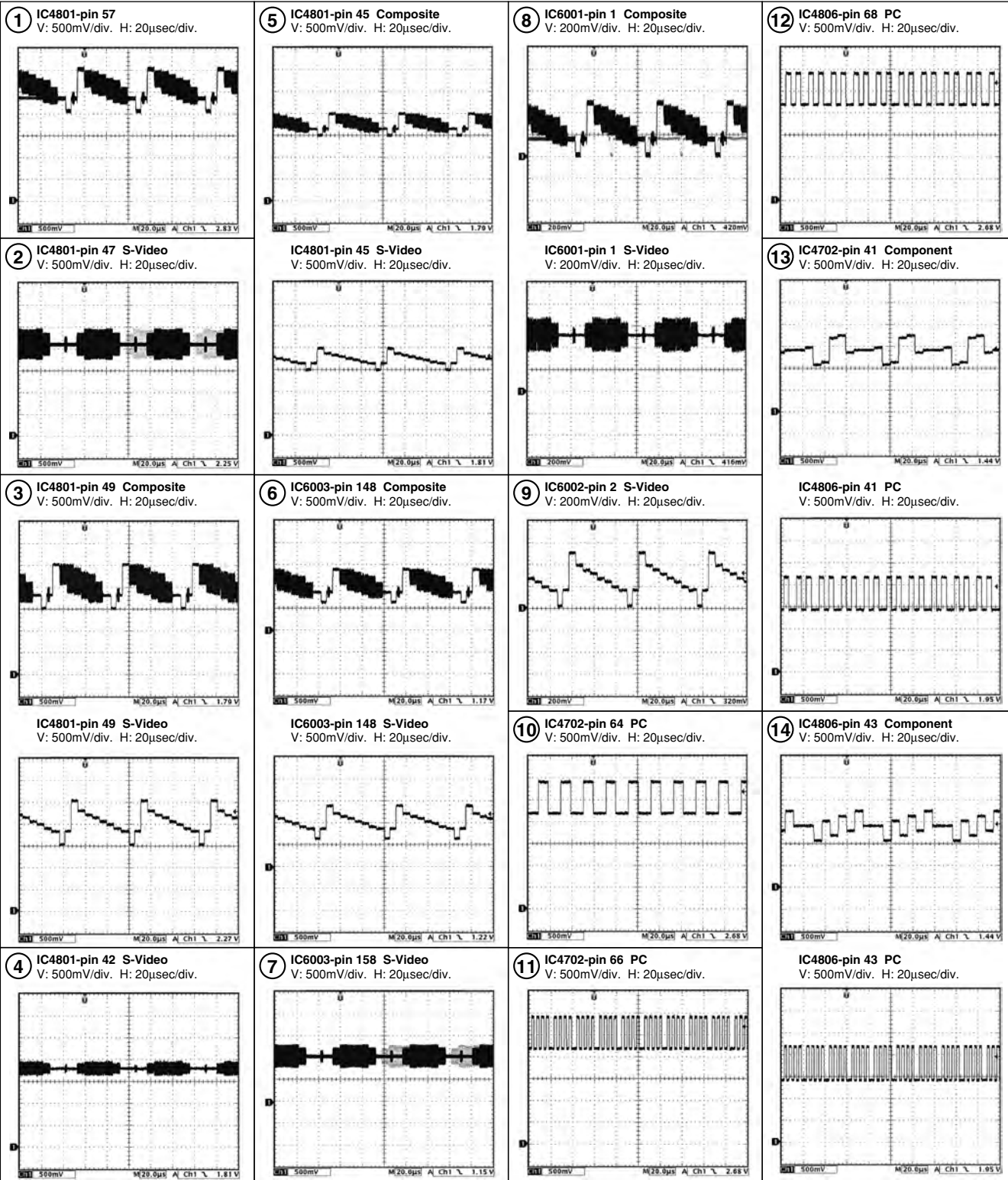
● DTB (Digital Terrestrial Board) doesn't operate



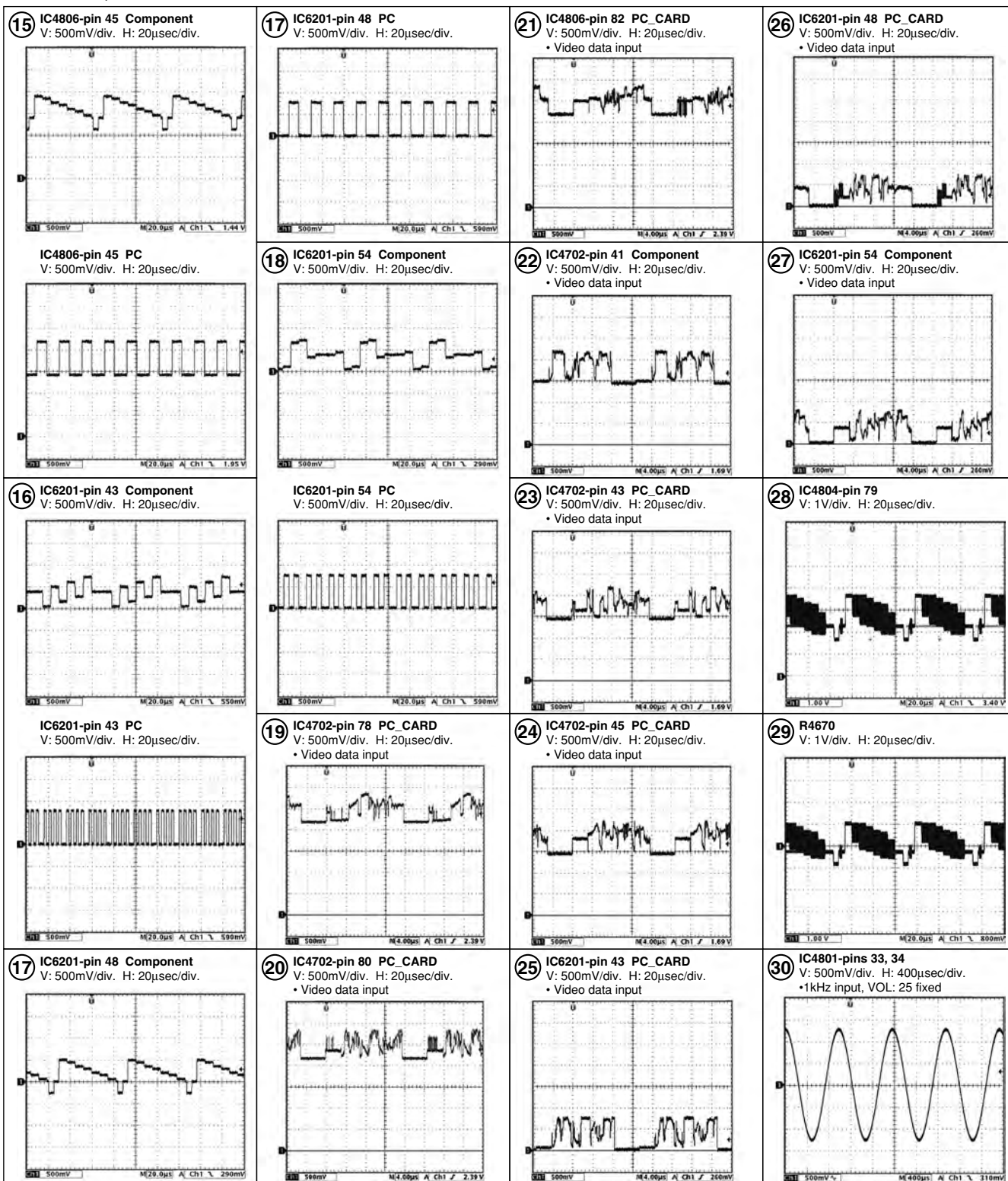
Waveforms for Troubleshooting

MR MAIN ASSY

• Color-bar input unless otherwise noted



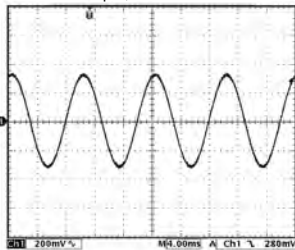
• Color-bar input unless otherwise noted



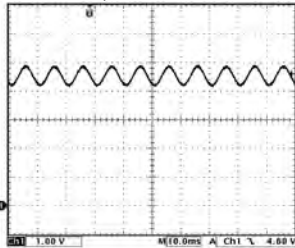
A

• 1kHz input, VOL: 25 fixed unless otherwise noted

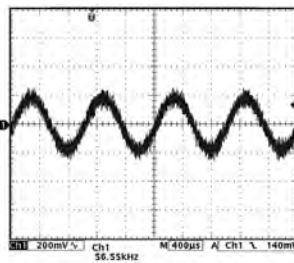
31 IC4804-pins 31, 32 AC-SUBWOO
V: 200mV/div. H: 4msec/div.
•100Hz input, VOL: 25 fixed



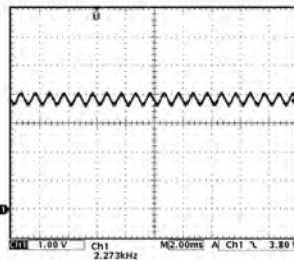
IC4804-pins 31, 32 DC-SUBWOO
V: 1V/div. H: 10msec/div.
•100Hz input, VOL: 25 fixed



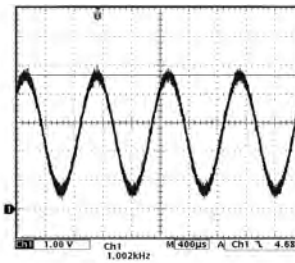
34 IC4401-pins 30, 31 AC
V: 200mV/div. H: 400μsec/div.



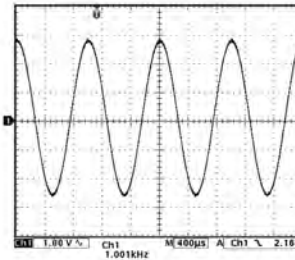
IC4401-pins 30, 31 DC
V: 1V/div. H: 2msec/div.



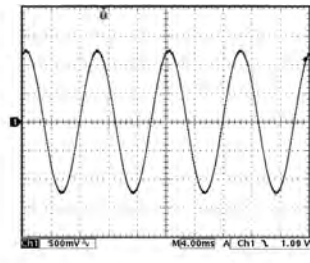
36 IC6405-pins 7, 8 DC
V: 1V/div. H: 400μsec/div.



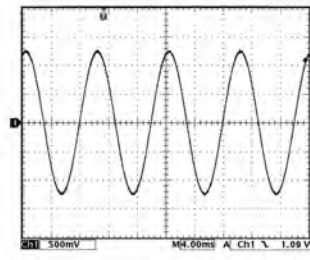
37 IC4804-pins 10, 11 AC
V: 1V/div. H: 400μsec/div.



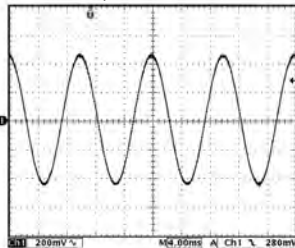
39 CN7201-pins 13, 20 AC
V: 500mV/div. H: 4msec/div.



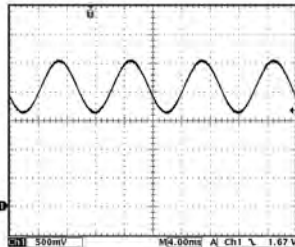
CN7201-pins 13, 20 DC
V: 500mV/div. H: 4msec/div.



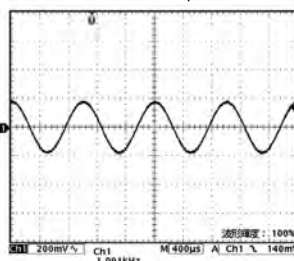
32 IC4808-pins 1, 7 AC-SUBWOO
V: 200mV/div. H: 4msec/div.
•100Hz input, VOL: 25 fixed



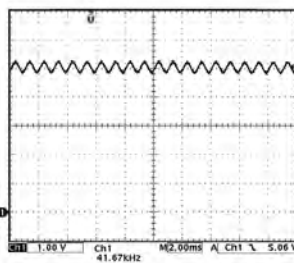
IC4808-pins 1, 7 DC-SUBWOO
V: 500mV/div. H: 4msec/div.
•100Hz input, VOL: 25 fixed



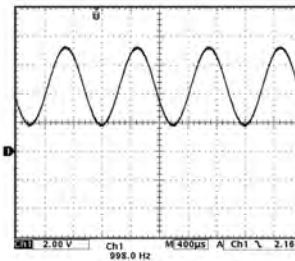
35 IC4804-pins 19, 20 AC
V: 200mV/div. H: 400μsec/div.



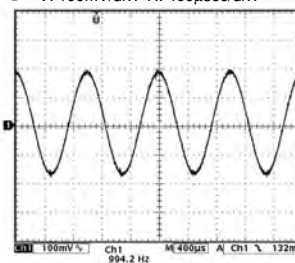
IC4804-pins 19, 20 DC
V: 1V/div. H: 2msec/div.



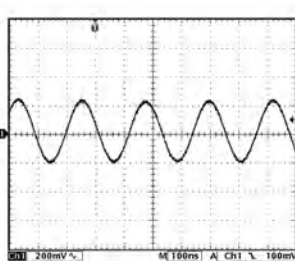
IC4804-pins 10, 11 DC
V: 2V/div. H: 400μsec/div.



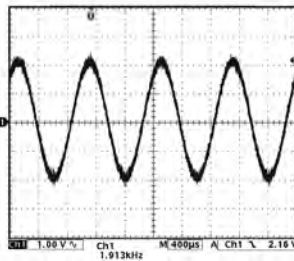
38 IC4804-pins 35, 36 AC
V: 100mV/div. H: 400μsec/div.



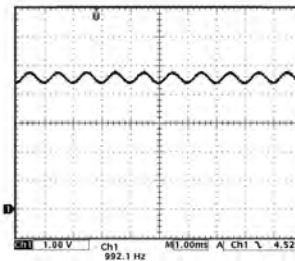
33 U4401-pin 18 = C4403
V: 200mV/div. H: 100nsec/div.



36 IC6405-pins 7, 8 AC
V: 1V/div. H: 400μsec/div.



IC4804-pins 35, 36 DC
V: 1V/div. H: 1msec/div.



B

C

D

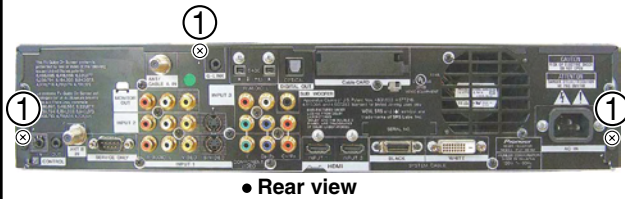
E

F

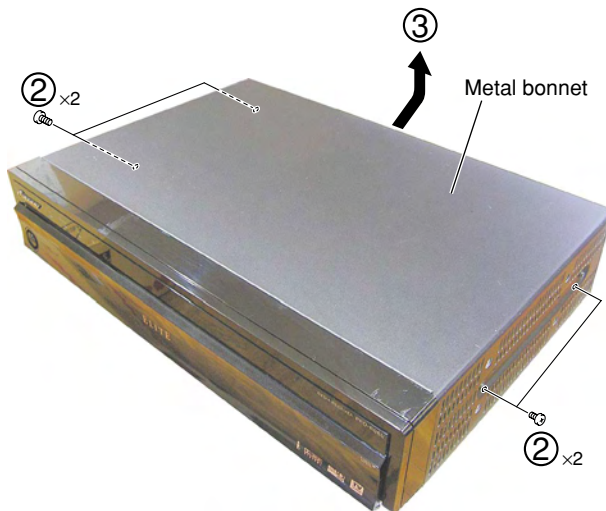
Note : Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

1 Metal Bonnet

- ① Remove the three screws.

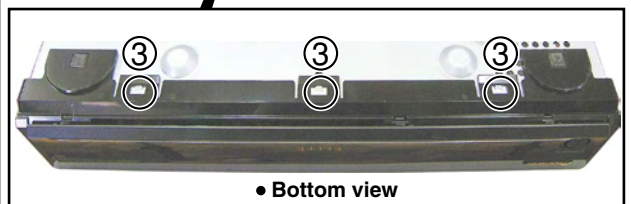
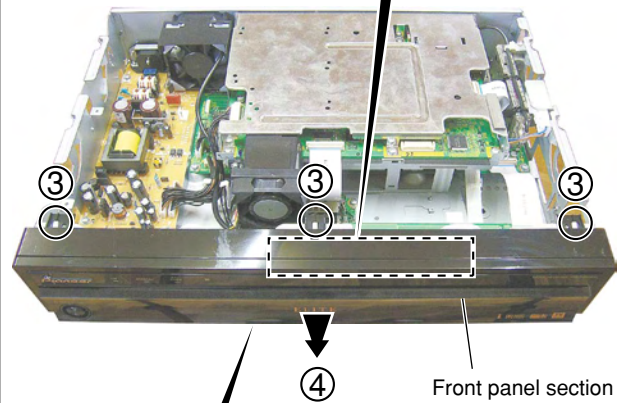
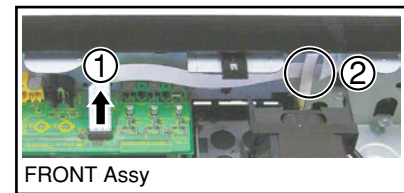


- ② Remove the four screws.
- ③ Remove the metal bonnet while pulling it backward.



2 Front Panel Section

- ① Disconnect the flexible cable.
- ② Remove the flexible cable from the flat clamp.
- ③ Unhook the six hooks.
- ④ Remove the front panel section.

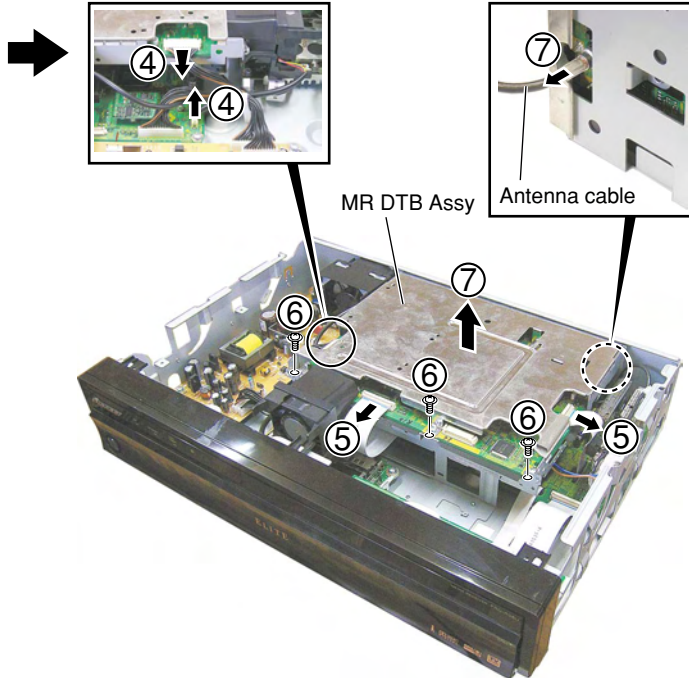
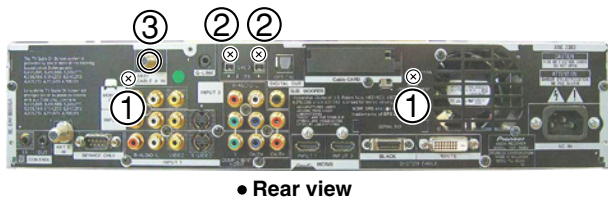


3 MR DTB Assy

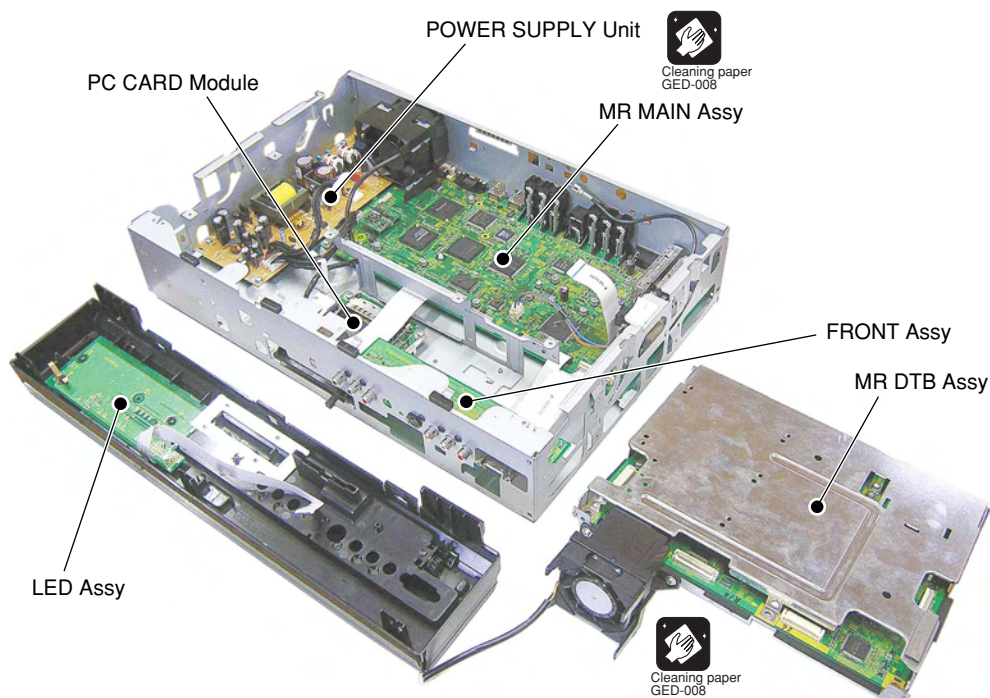
Note : MR DTB Assy can remove even if does not remove the front panel section.

- ① Remove the two screws.
- ② Remove the two screws.
- ③ Remove the one nut.

- ④ Disconnect the two connectors.
- ⑤ Disconnect the two flexible cables.
- ⑥ Remove the three screws.
- ⑦ Remove the antenna cable.
- ⑧ Remove the MR DTB Assy.



PCB Location

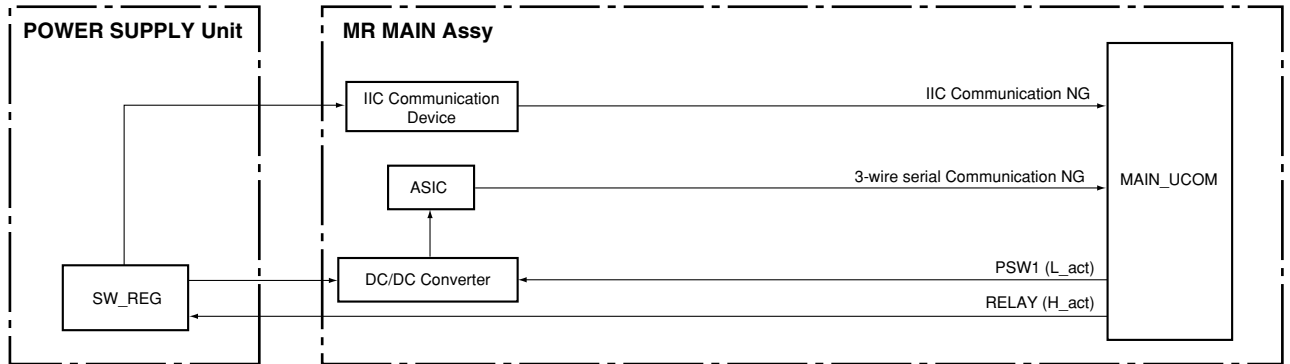


7.2 EXPLANATION

7.2.1 PROCESSING IN ABNORMALITY

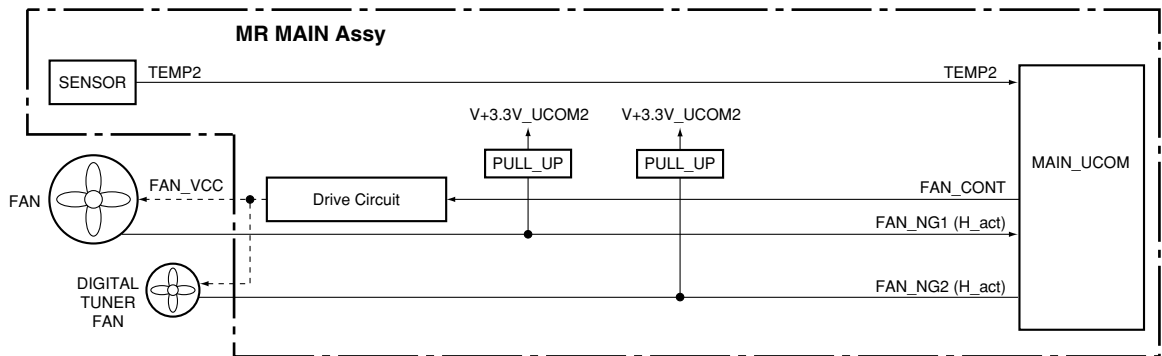
Power supply and DC-DC converter

● Circuit diagram



Fan and temperature sensor

● Circuit diagram

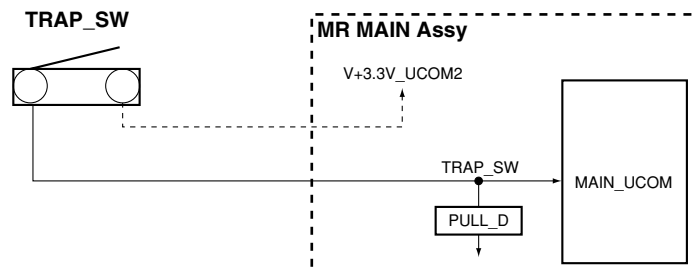


● Specifications for port monitoring

Port Name	SD/PD Indication	Assigned Pin	Active
FAN_NG 1	FAN	155	Shutdown with H
FAN_NG 2	FAN	104	Shutdown with H
TEMP2	Abnormally high temperature in the MR	76	Shutdown when the value exceeds the predetermined value

TRAP_SW

● Circuit diagram



● Specifications for port monitoring

Port Name	SD/PD Indication	Assigned Pin	Active
TRAP_SW	Modification tried	151	OFF with L

LED-lighting patterns

Status of the Unit		LED-lighting Pattern
Standby, power management	Lit in red	
Power on	Lit in blue	
PDP's power not on	Flashing in red (at 1-sec intervals)	
System cable disconnected *	Flashing alternately in red and blue (at 1-sec intervals)	
Waiting for start of rewriting by the microcomputer		
Waiting for finish of rewriting by the microcomputer		
Shutdown (circuit protection)	Flashing in blue n times (initially at 0.5-sec intervals then 2.5-sec intervals)	
Power-down (circuit protection)	Flashing in red for n times (initially at 0.5-sec intervals then 2.5-sec intervals)	
TRAP switch operation		

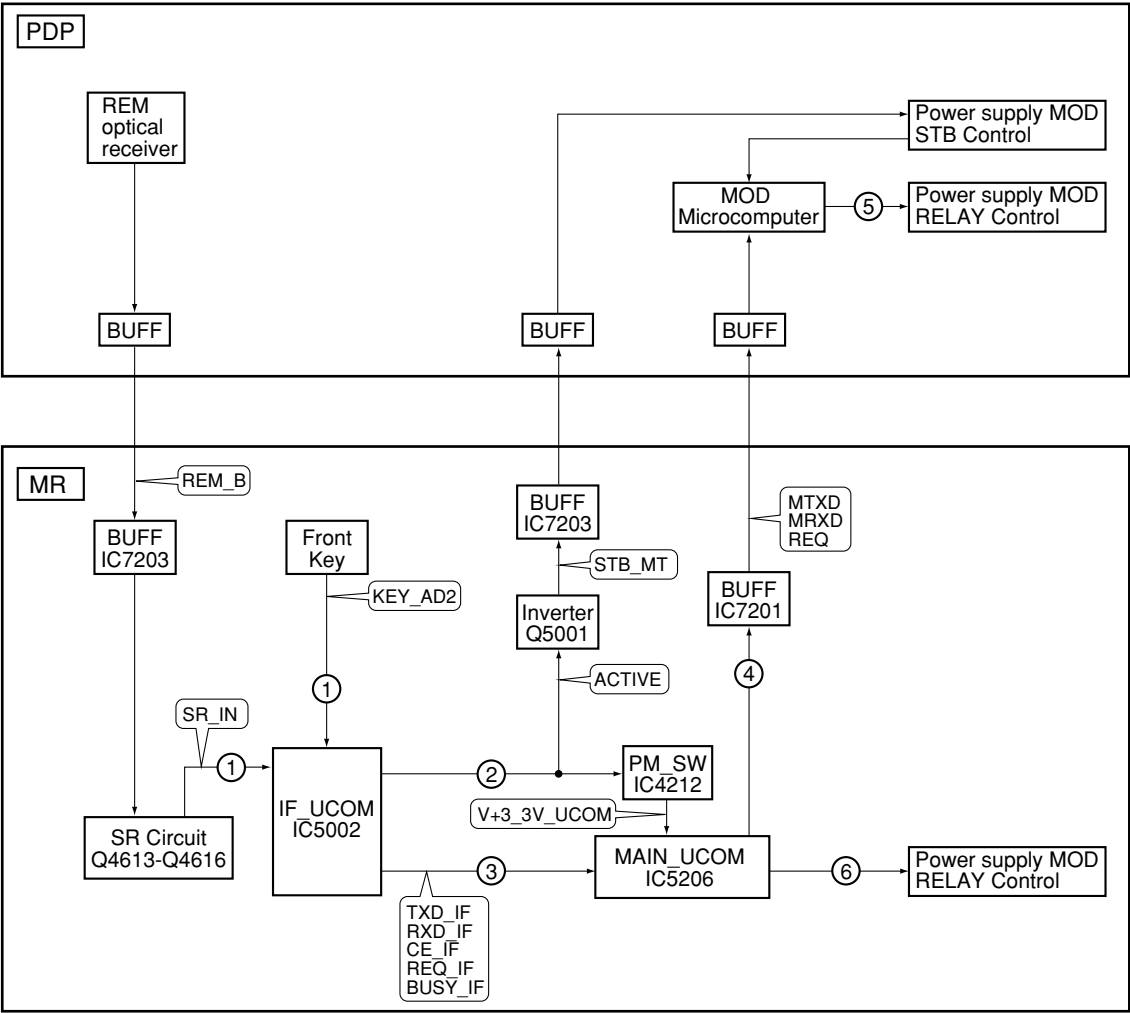
* In this case, the red and blue areas on the screen of the panel flash alternately.

■ Defective points assumed from the number of times of LED flashing

No. of times of LED flashing LEDs on the panel LEDs on the MR				Category *1	Site detected as defective	Possible defective points (representative examples)	OSD when detected (warning message)
Red	Blue	Red	Blue				
	Blue 1	Red			Panel drive IC	*2	None
	Blue 2	Red			Module section IIC	*2	None
	Blue 3	Red			Power decrease of DIGITAL-DC-DC	*2	None
	Blue 4	Red			Panel having abnormally high temperature	*2	Power off. Internal temperature is too high. Check temperature around PDP. [SD04] *6
	Blue 5	Red			Short-circuiting of the speakers	*2	Internal protection circuit turns power off. Is there a short in speaker cable? (SD05)
Red			Blue 6	SD	Module microcomputer	Disconnection of the system cable Defective module microcomputer or its peripheral circuits of the PDP-436PU or PDP-506PU.) Defective main microcomputer (IC5206) Failure in communication (TXD_MD, RXD_MD, REQ_MD) between the panel's module microcomputer and IC5206 (main microcomputer)	None
Red			Blue 7		3-wire serial connection of the main section	Defective IC5002 or its peripheral circuits Failure in communication (TXD_IF, RXD_IF, CLK_IF, CE_IF, REQ_IF, BUSY_IF) between IC5002 and IC5206 (main microcomputer) Defective IC7001 or its peripheral circuits Failure in communication (TXD_IC3, RXD_IC3, CLK_IC3, IC3, REQ_IC3, BUSY_IC3) between IC7001 and IC5206 (main microcomputer)	None
Red			Blue 8		IIC of the main section	Defective U4401 (FE1) or its peripheral circuits Defective IC4401 (MPX) or its peripheral circuits *3 Defective IC4702 (RGB_SW) or its peripheral circuits Defective ICxxxx (GCR) or its peripheral circuits *4 Defective IC6001 (S-VDEC) or its peripheral circuits *5 Defective IC6404 (HDMI) or its peripheral circuits Defective ICxxxx (PLK-R) or its peripheral circuits Defective IC5405 (TTX-COM, TTX-BSY) or its peripheral circuits *3 Defective IC5202 (MA-EEP) or its peripheral circuits Failure in communication (SCL_AV, SDA_AV, SCL_MA, SDA_MA, SCL_EP, SDA_EP, SCL_HDCP, SDA_HDCP) Failure in communication (TXD_AV, RXD_AV, SCL_MA, SDA_MA, SCL_EP, SDA_EP, SCL_HDCP, SDA_HDCP)	None
Red			Blue 9		Main microcomputer	Defective IC5206 (main microcomputer) Failure in communication (TXD_IF, RXD_IF, CLK_IF, CE_IF, BUSY_IF) between IC5206 (main microcomputer) and IC5002	None
Red			Blue 10		Fan	Failure in the fan motor, or the fan stopped because of dust attached to the fan	None
Red			Blue 11		MR or unit having abnormally high temperature	The Media Receiver or the unit being used at high temperature	Power off. Internal temperature is too high. Check temperature around media receiver. [SD011]
Red			Blue 12		Digital tuner	Defective DTV tuner Failure in communication (TXD_DT, RXD_DT) between the digital tuner and IC5206 (main microcomputer)	None
Red			Blue 13		ASIC power supply (DC-DC)	Defective U4201 (DD_CON) or short-circuiting elsewhere *6	None
Red 2		Red		PD	POWER	*2	None
Red 3		Red			SCAN	*2	None
Red 4		Red			SCAN-5V	*2	None
Red 5		Red			Y-DRV	*2	None
Red 6		Red			Y-DCDC	*2	None
Red 7		Red			Y-SUS	*2	None
Red 8		Red			ADRS	*2	None
Red 9		Red			X-DRV	*2	None
Red 10		Red			X-DCDC	*2	None
Red 11		Red			X-SUS	*2	None
Red 12		Red			D-DCDC	*2	None
Red 13		Red			IC4	*2	None
Red 15		Red			UNKNOWN	*2	None

*1: Shutdown (SD) is a protective operation controlled by the microcomputer, and you can turn on the unit again using the remote control unit. Power-down (PD) is a protective operation activated by the circuitry and can be reset after AC power is off for about 1 minute.

*2: Refer to the service manual of the PDP-436PU or PDP-506PU.
*3: Only for EU and IRD model. *4: Only for J model.
*5: Except for US model. *6: Only for one-body model.



REM_B Comment in the balloon is the reference signal name.
Please confirm the wiring number of PDP side with the service manual of PDP side.

- ① : Remote controller signal (or, KEY signal) is input into IF microcomputer.
- ② : IF microcomputer supplies the power supply to Main microcomputer and MOD microcomputer.
- ③ : IF microcomputer communicates the operation information of Remote controller (or KEY) to Main microcomputer.
- ④ : Main microcomputer sends in the activation order to MOD microcomputer.
- ⑤ : MOD microcomputer controls the relay of PDP power supply MOD, and activate the power supply of PDP side.
- ⑥ : Main microcomputer controls the relay of MR power supply MOD, and activate the power supply of MR side.

7.3 PARTS

7.3.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

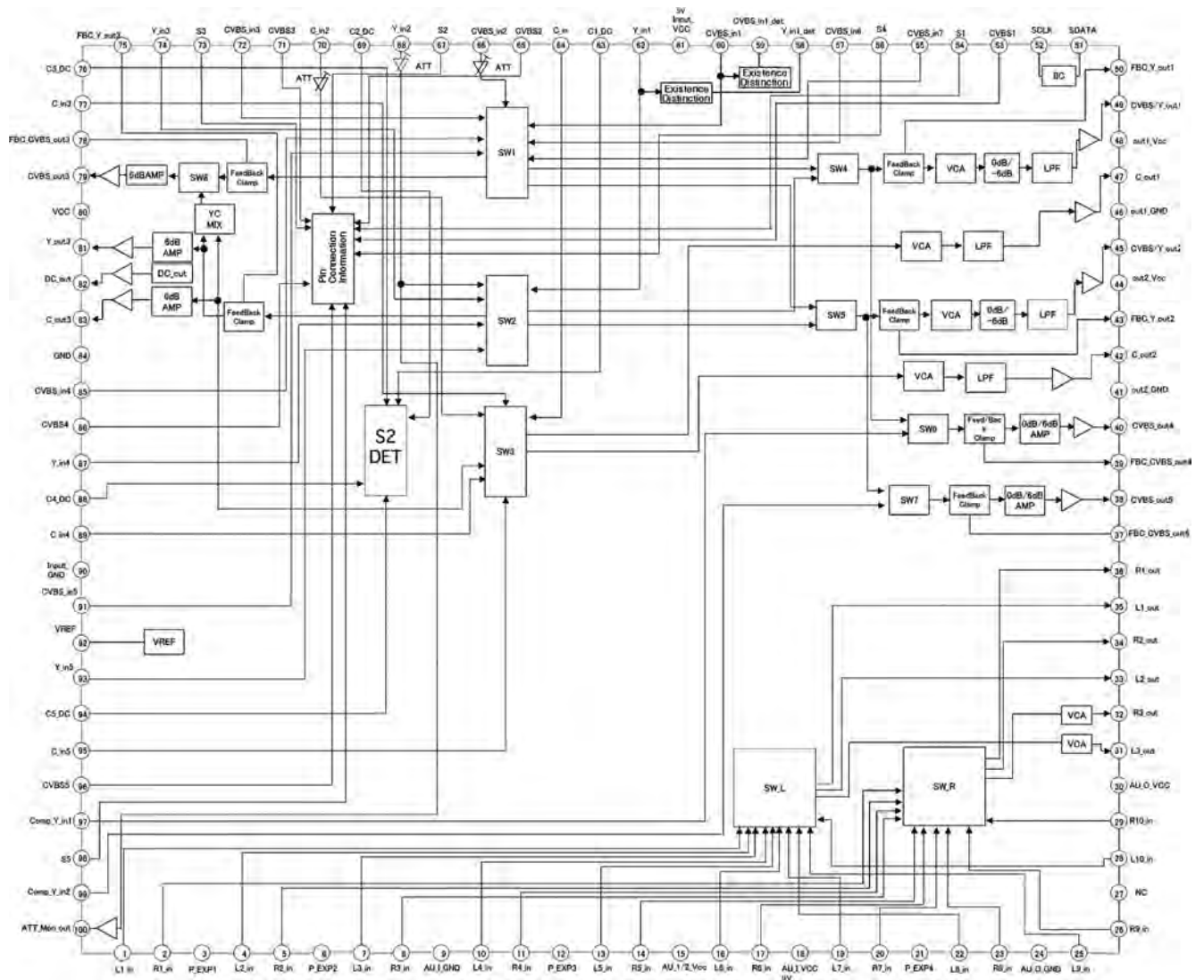
• List of IC

R2S11002AFT, R2S11001FT, UPD64015GM-UEU, K4S161622H-TC60, AD9985KSTZ-110, SII9021CTU, K4S643232H-TC60, MBM29DL162TE70TN, SII170BCLG64, AXY1117, AXF1130, AXF1148

■ R2S11002AFT (MR MAIN ASSY: IC4801)

• AV SW

• Block Diagram



A

R2S11001FT (MR MAIN ASSY: IC4702)

• Component SW IC

● Block Diagram

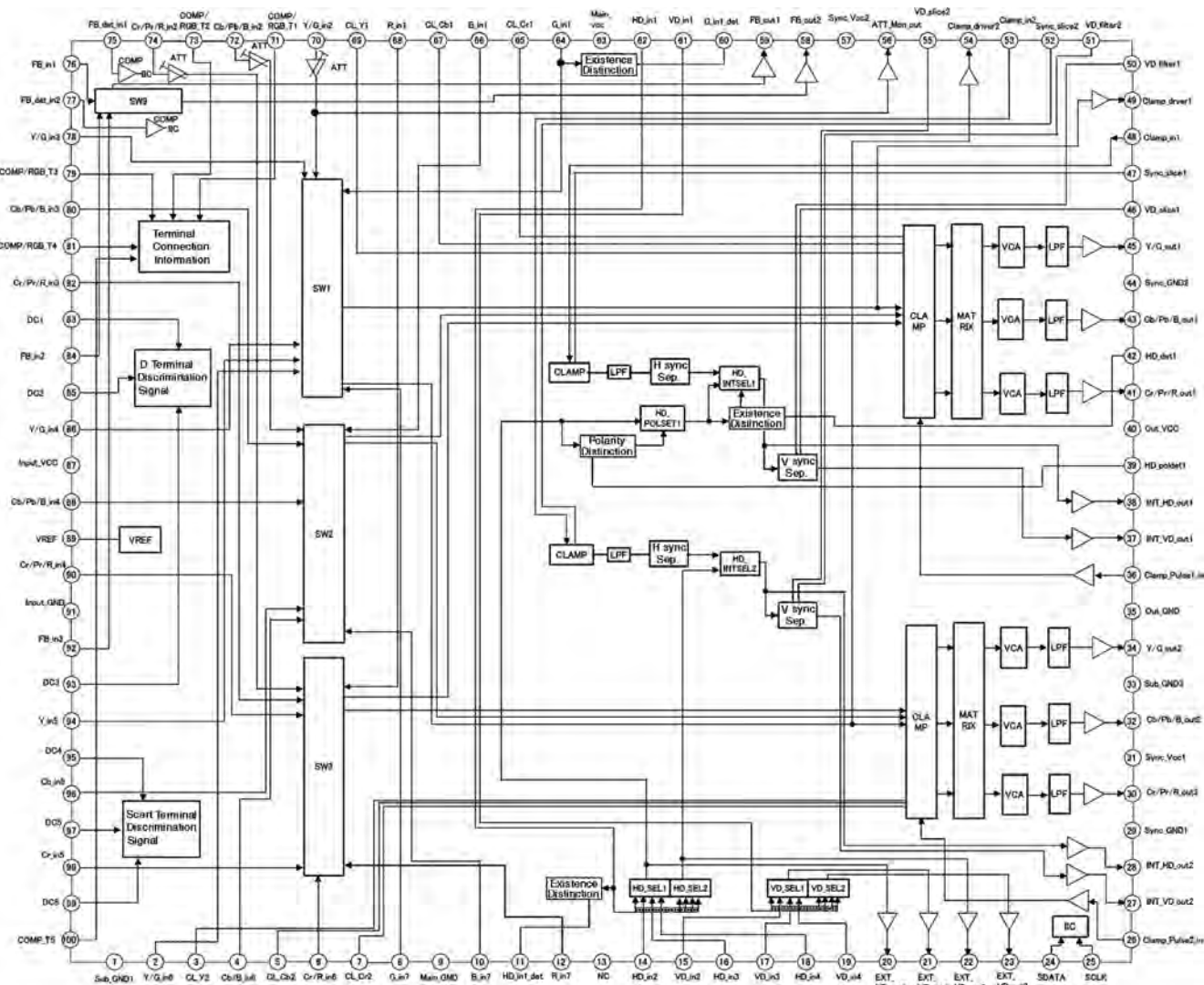
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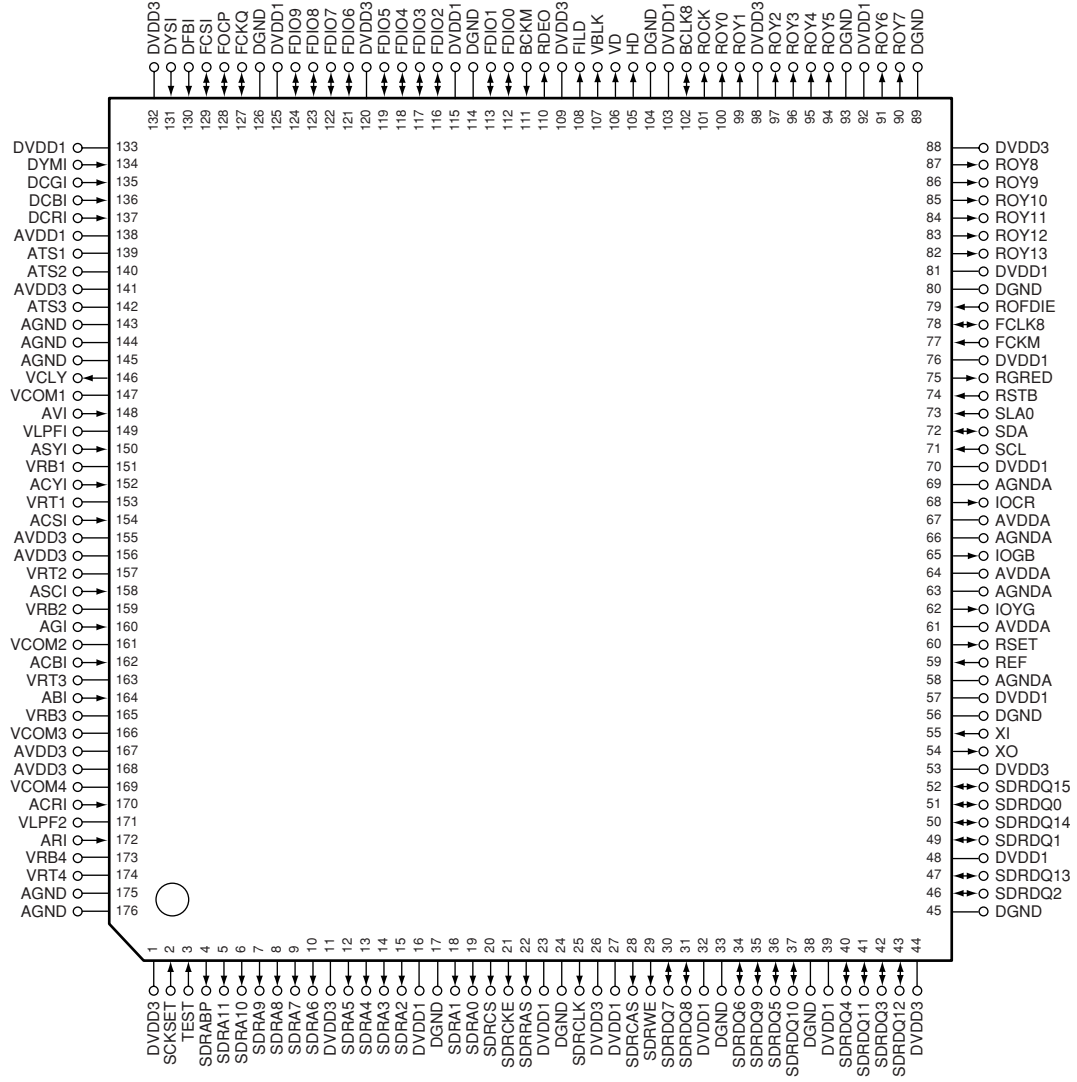
F



UPD64015GM-UEU (MR MAIN ASSY : IC6003)

• Video Decoder (for main screen)

Pin Arrangement (Top view)



A ● Block Diagram

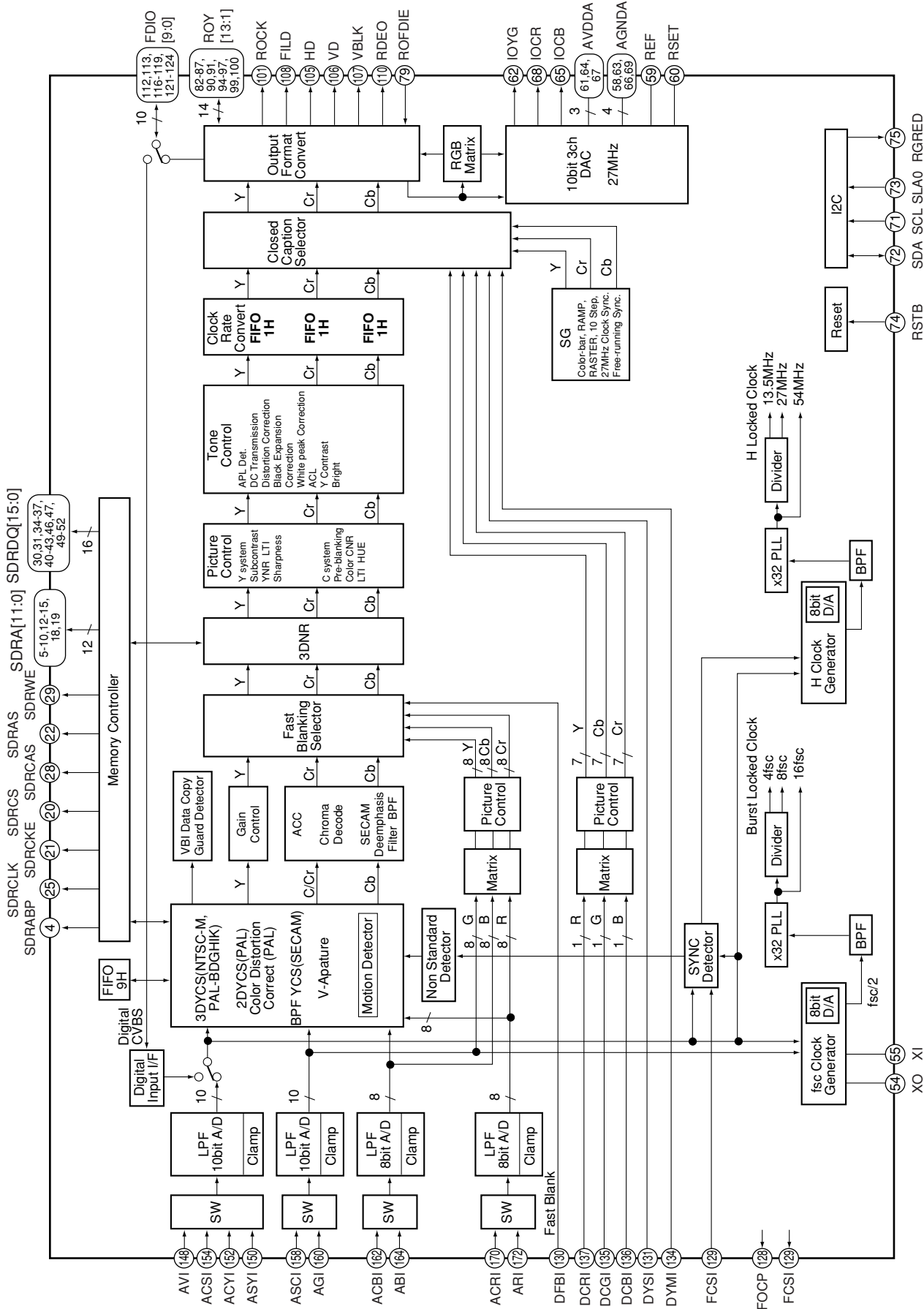
B

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● Pin Function

No.	Pin Name	I/O	Pin Function
1	DVDD3	–	Digital power supply (3.3V)
2	SCKSET	I	Test mode selection (L: Normal, H: Test mode)
3	TEST	I	Test setting (L: Normal, H: Test mode)
4	SDRABP	O	All bank precharge output for external memory (Active High)
5	SDRA11	O	Address output for external memory
6	SDRA10	O	Address output for external memory
7	SDRA9	O	Address output for external memory
8	SDRA8	O	Address output for external memory
9	SDRA7	O	Address output for external memory
10	SDRA6	O	Address output for external memory
11	DVDD3	–	Digital power supply (3.3V)
12	SDRA5	O	Address output for external memory
13	SDRA4	O	Address output for external memory
14	SDRA3	O	Address output for external memory
15	SDRA2	O	Address output for external memory
16	DVDD1	–	Digital power supply (1.5V)
17	DGND	–	Digital ground
18	SDRA1	O	Address output for external memory
19	SDRA0	O	Address output for external memory
20	SDRCS	O	Chip select output for external memory (Active Low)
21	SDRCKE	O	Clock enable output for external memory (Active High)
22	SDRRAS	O	Row address strobe output for external memory (Active Low)
23	DVDD1	–	Digital power supply (1.5V)
24	DGND	–	Digital ground
25	SDRCLK	O	Clock output for external memory
26	DVDD3	–	Digital power supply (3.3V)
27	DVDD1	–	Digital power supply (1.5V)
28	SDRCAS	O	Column address strobe output for external memory (Active Low)
29	SDRWE	O	Write enable output for external memory (Active Low)
30	SDRDQ7	I/O	Data input/output for external memory
31	SDRDQ8	I/O	Data input/output for external memory
32	DVDD1	–	Digital power supply (1.5V)
33	DGND	–	Digital ground
34	SDRDQ6	I/O	Data input/output for external memory
35	SDRDQ9	I/O	Data input/output for external memory
36	SDRDQ5	I/O	Data input/output for external memory
37	SDRDQ10	I/O	Data input/output for external memory
38	DGND	–	Digital ground
39	DVDD1	–	Digital power supply (1.5V)
40	SDRDQ4	I/O	Data input/output for external memory
41	SDRDQ11	I/O	Data input/output for external memory
42	SDRDQ3	I/O	Data input/output for external memory
43	SDRDQ12	I/O	Data input/output for external memory
44	DVDD3	–	Digital power supply (3.3V)
45	DGND	–	Digital ground
46	SDRDQ2	I/O	Data input/output for external memory
47	SDRDQ13	I/O	Data input/output for external memory
48	DVDD1	–	Digital power supply (1.5V)
49	SDRDQ1	I/O	Data input/output for external memory
50	SDRDQ14	I/O	Data input/output for external memory

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No.	Pin Name	I/O	Pin Function
51	SDRDQ0	I/O	Data input/output for external memory
52	SDRDQ15	I/O	Data input/output for external memory
53	DVDD3	–	Digital power supply (3.3V)
54	XO	O	Reference clock output Connect a 24.576MHz crystal.
55	XI	I	Reference clock input Connect a 24.576MHz crystal.
56	DGND	–	Digital ground
57	DVDD1	–	Digital power supply (1.5V)
58	AGNDA	–	Analog ground for DAC
59	REF	I	External reference input
60	RSET	O	Connect a 620 ohm resistor for external adjustment to AGND
61	AVDDA	–	Analog power supply for DAC (3.3V)
62	IOYG	O	Color-difference component Y / RGB component G output signal
63	AGNDA	–	Analog ground for DAC
64	AVDDA	–	Analog power supply for DAC (3.3V)
65	IOGB	O	Color-difference component Cb / RGB component B output signal
66	AGNDA	–	Analog ground for DAC
67	AVDDA	–	Analog power supply for DAC (3.3V)
68	IOCR	O	Color-difference component Cr / RGB component R output signal
69	AGNDA	–	Analog ground for DAC
70	DVDD1	–	Digital power supply (1.5V)
71	SCL	I	I ² C bus clock input Connect to SCL line of the system.
72	SDA	I/O	I ² C bus data input/output Connect to SDA line of the system.
73	SLA0	I	I ² C bus slave address select input (L: B8h/B9h, H: BAh/BBh)
74	RSTB	I	System reset input (Active Low)
75	RGRED	O	I ² C register read flag output (Active Low)
76	DVDD1	–	Digital power supply (1.5V)
77	FCKM	I	FCLK8 test mode selection (L: Normal, H: Test mode)
78	FCLK8	I/O	Line-lock clock monitor input/output
79	ROFDIE	I	Output enable of the video input/output terminal L: Output terminal Hi-Z, H: Output enable
80	DGND	–	Digital ground
81	DVDD1	–	Digital power supply (1.5V)
82	ROY13	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
83	ROY12	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
84	ROY11	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
85	ROY10	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
86	ROY9	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
87	ROY8	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
88	DVDD3	–	Digital power supply (3.3V)
89	DGND	–	Digital ground
90	ROY7	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
91	ROY6	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
92	DVDD1	–	Digital power supply (1.5V)
93	DGND	–	Digital ground
94	ROY5	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
95	ROY4	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
96	ROY3	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
97	ROY2	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
98	DVDD3	–	Digital power supply (3.3V)
99	ROY1	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output
100	ROY0	O	Digital ITU-R BT. 656/component output Digital RGB component (8 bit) output

No.	Pin Name	I/O	Pin Function
101	ROCK	O	Clock for digital ITU-R BT. 656/component output
102	BCLK8	I/O	Line-lock clock monitor input/output
103	DVDD1	–	Digital power supply (1.5V)
104	DGND	–	Digital ground
105	HD	O	Horizontal sync. signal output
106	VD	O	Vertical sync. signal output
107	VBLK	O	V blanking output
108	FILD	O	Field output
109	DVDD3	–	Digital power supply (3.3V)
110	RDEO	O	Effective pixel area output
111	BCKM	I	Test mode selection of BCLK8 pin (L: Normal, H: Test mode)
112	FDIO0	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
113	FDIO1	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
114	DGND	–	Digital ground
115	DVDD1	–	Digital power supply (1.5V)
116	FDIO2	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
117	FDIO3	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
118	FDIO4	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
119	FDIO5	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
120	DVDD3	–	Digital power supply (3.3V)
121	FDIO6	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
122	FDIO7	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
123	FDIO8	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
124	FDIO9	I/O	Digital 8/10 bit Cb, Cr output / Input at UPD64031A digital connection Open at no use.
125	DVDD1	–	Digital power supply (1.5V)
126	DGND	–	Digital ground
127	FCKQ	I/O	Sampling clock output for digital connection
128	FOCP	I/O	Clamp pulse output for digital connection / Timing output for digital RGB input (VD)
129	FCSI	I/O	Sync sep. signal input / Timing output for RGB input (HD)
130	DFBI	I	Fast blanking signal input for analog RGB input
131	DYSI	I	YS signal input for digital RGB input
132	DVDD3	–	Digital power supply (3.3V)
133	DVDD1	–	Digital power supply (1.5V)
134	DYMI	I	YM signal input for digital RGB input
135	DCGI	I	Digital RGB/G signal input
136	DCBI	I	Digital RGB/B signal input
137	DCRI	I	Digital RGB/R signal input
138	AVDD1	–	Analog power supply (1.5V)
139	ATS1	–	Analog test input Normally, connect to GND.
140	ATS2	–	Analog test input Normally, connect to GND.
141	AVDD3	–	Analog power supply (3.3V)
142	ATS3	–	Analog test input Normally, connect to GND.
143	AGND	–	Analog ground
144	AGND	–	Analog ground
145	AGND	–	Analog ground
146	VCLY	O	ADC1 clamp voltage
147	VCOM1	–	ADC1 common-mode reference voltage
148	AVI	I	ADC1 composite/Y signal input
149	VLPI	–	Analog test output Connect to GND via 0.1μF capacitor.
150	ASYI	I	ADC1 composite/Y signal input

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No.	Pin Name	I/O	Pin Function
151	VRB1	–	ADC1 bottom reference voltage
152	ACYI	I	ADC1 composite/Y signal input
153	VRT1	–	ADC1 top reference voltage
154	ACSI	I	ADC1 composite/Y signal input
155	AVDD3	–	Analog power supply for ADC (3.3V)
156	AVDD3	–	Analog power supply for ADC (3.3V)
157	VRT2	–	ADC2 top reference voltage
158	ASCI	I	ADC2 separate C signal input
159	VRB2	–	ADC2 bottom reference voltage
160	AGI	I	ADC2 RGB component G signal input
161	VCOM2	–	ADC2 common-mode reference voltage
162	ACBI	I	ADC3 color-difference component Cb signal input
163	VRT3	–	ADC3 top reference voltage
164	ABI	I	ADC3 RGB component B signal input
165	VRB3	–	ADC3 bottom reference voltage
166	VCOM3	–	ADC3 common-mode reference voltage
167	AVDD3	–	Analog power supply for ADC (3.3V)
168	AVDD3	–	Analog power supply for ADC (3.3V)
169	VCOM4	–	ADC4 common-mode reference voltage
170	ACRI	I	ADC4 color-difference component Cr signal input
171	VLPF2	–	Analog test output
172	ARI	I	ADC3 RGB component R signal input
173	VRB4	–	ADC4 bottom reference voltage
174	VRT4	–	ADC4 top reference voltage
175	AGND	–	Analog ground
176	AGND	–	Analog ground

D

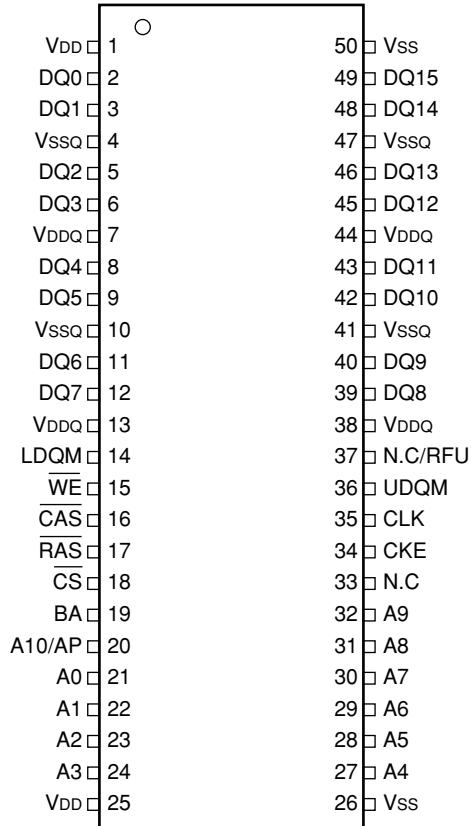
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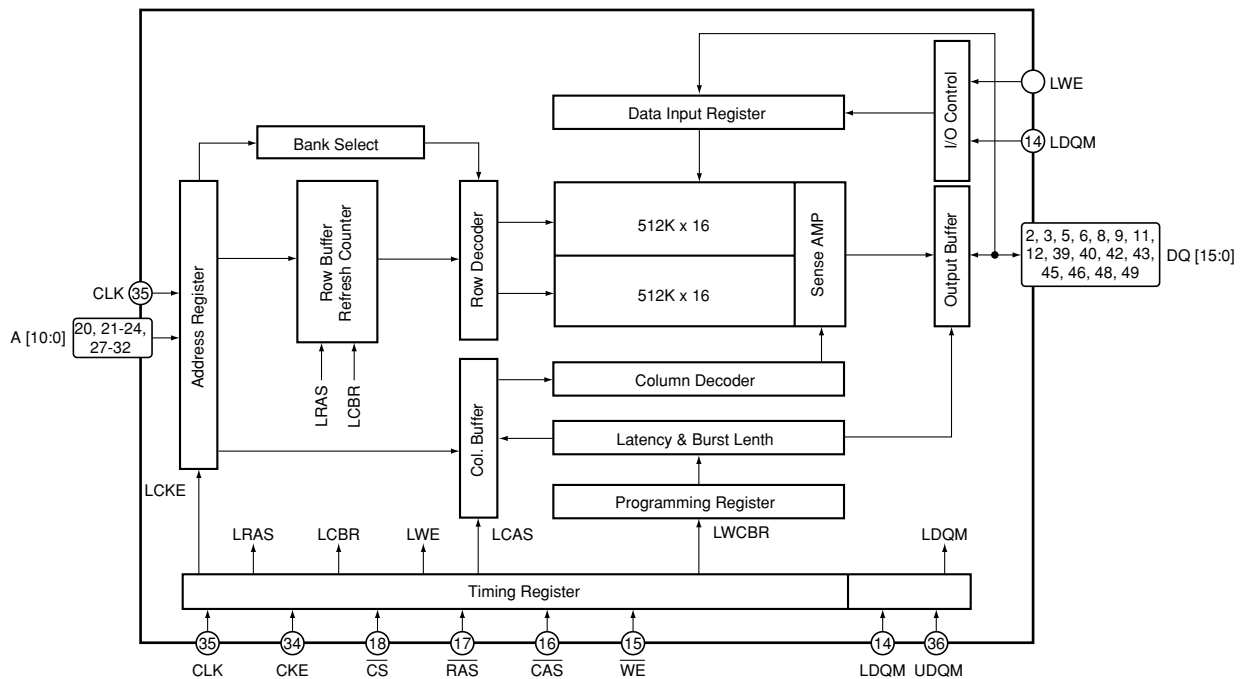
K4S161622H-TC60 (MR MAIN ASSY : IC6002)

• 16M SDRAM (for Main VDEC)

● Pin Arrangement (Top view)



● Block Diagram



A

● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	V _{DD}	—	Power supply	26	V _{SS}	—	Ground
2	DQ0	I/O	Data input / output	27	A4	I	Address input
3	DQ1	I/O	Data input / output	28	A5	I	Address input
4	V _{SSQ}	—	Ground for data output	29	A6	I	Address input
5	DQ2	I/O	Data input / output	30	A7	I	Address input
6	DQ3	I/O	Data input / output	31	A8	I	Address input
7	V _{DDQ}	—	Power supply for data output	32	A9	I	Address input
8	DQ4	I/O	Data input / output	33	N.C	—	No connection
9	DQ5	I/O	Data input / output	34	CKE	I	Clock enable input
10	V _{SSQ}	—	Ground for data output	35	CLK	I	System clock input
11	DQ6	I/O	Data input / output	36	UDQM	I	Data input / output mask input
12	DQ7	I/O	Data input / output	37	N.C/RFU	—	No connection / Reserved for future use
13	V _{DDQ}	—	Power supply for data output	38	V _{DDQ}	—	Power supply for data output
14	LDQM	I	Data input / output mask input	39	DQ8	I/O	Data input / output
15	\overline{WE}	I	Write enable input	40	DQ9	I/O	Data input / output
16	\overline{CAS}	I	Column address strobe input	41	V _{SSQ}	—	Ground for data output
17	\overline{RAS}	I	Row address strobe input	42	DQ10	I/O	Data input / output
18	\overline{CS}	I	Chip select input	43	DQ11	I/O	Data input / output
19	BA	I	Bank select address input	44	V _{DDQ}	—	Power supply for data output
20	A10/AP	I	Address input	45	DQ12	I/O	Data input / output
21	A0	I	Address input	46	DQ13	I/O	Data input / output
22	A1	I	Address input	47	V _{SSQ}	—	Ground for data output
23	A2	I	Address input	48	DQ14	I/O	Data input / output
24	A3	I	Address input	49	DQ15	I/O	Data input / output
25	V _{DD}	—	Power supply	50	V _{SS}	—	Ground

D

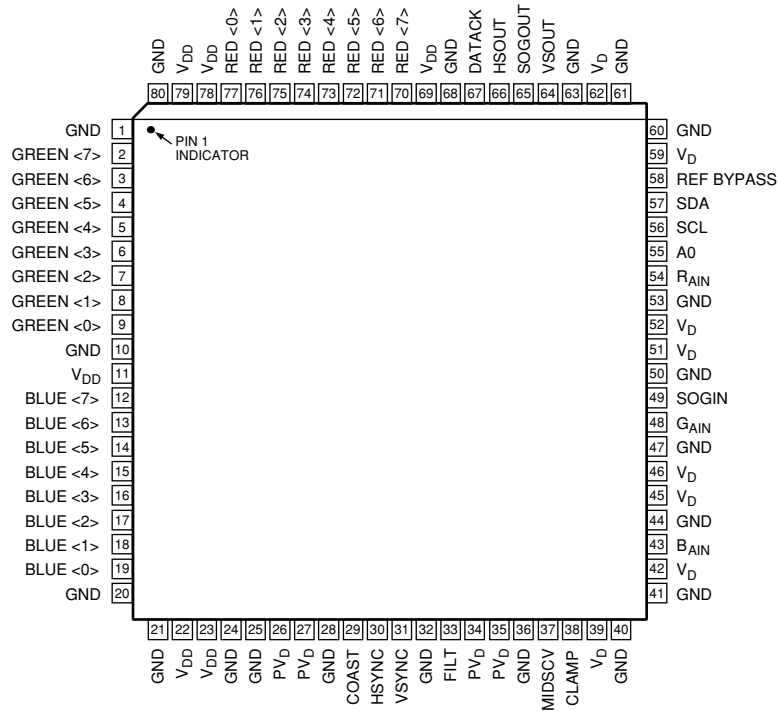
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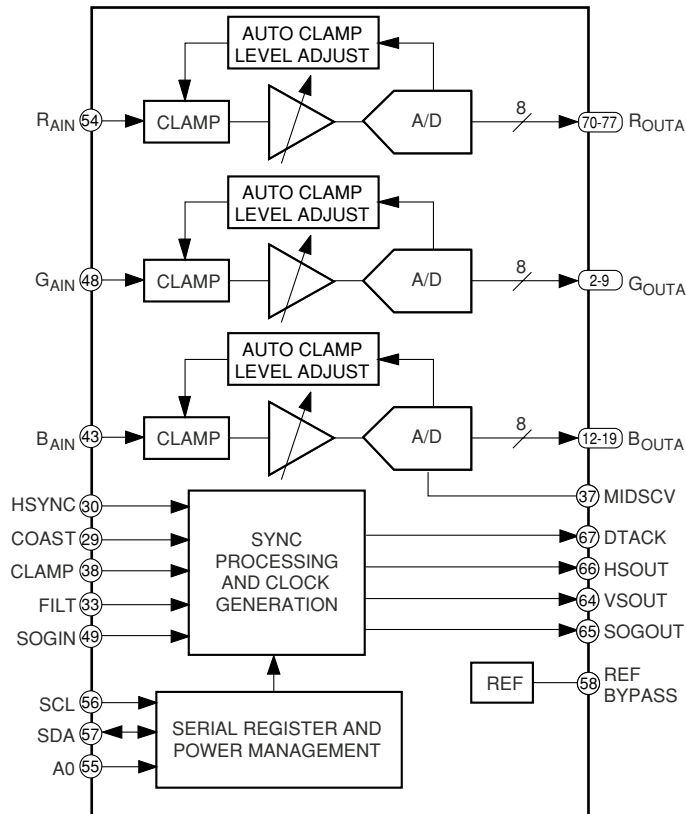
AD9985KSTZ-110 (MR MAIN ASSY : IC6201)

• ADC

● Pin Arrangement (Top view)



● Block Diagram



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● Pin Function

Pin Type	No.	PIN Name	Pin Function
Inputs	54	RAIN	Analog input for converter R
	48	GAIN	Analog input for converter G
	43	BAIN	Analog input for converter B
	30	HSYNC	Horizontal sync input
	31	VSYNC	Vertical sync input
	49	SOGIN	Input for sync-on green
	38	CLAMP	Clamp input (External CLAMP signal)
	29	COAST	PLL COAST signal input
Outputs	70-77	Red [7 : 0]	Outputs of converter red, bit 7 is the MSB
	2-9	Green [7 : 0]	Outputs of converter green, bit 7 is the BSB
	12-19	Blue [7 : 0]	Outputs of converter blue, bit 7 is the BSB
	67	DATAACK	Data output clock
	66	HSOUT	HSYNC output (Phase-aligned with DATAACK)
	64	VSOUT	VSYNC output (Phase-aligned with DATAACK)
	65	SOGOUT	Sync-on-green slicer output
Reference	58	REF BYPASS	Internal reference bypass
	37	MIDSCV	Internal midscale voltage bypass
	33	FILT	Connection for external filter components for internal PLL
Power Supply	39, 42, 45, 46, 51, 52, 59, 62	V _D	Analog power supply
	11, 22, 23, 69, 78, 79	V _{DD}	Output power supply
	26, 27, 34, 35	PV _D	PLL power supply
	1, 10, 20, 21, 24, 25, 28, 32, 36, 40, 41, 44, 47, 50, 53, 60, 61, 63 68, 80	GND	Ground
Control	57	SDA	Serial port data I/O
	56	SCL	Serial port data clock (100 kHz maximum)
	55	A0	Serial port address input 1

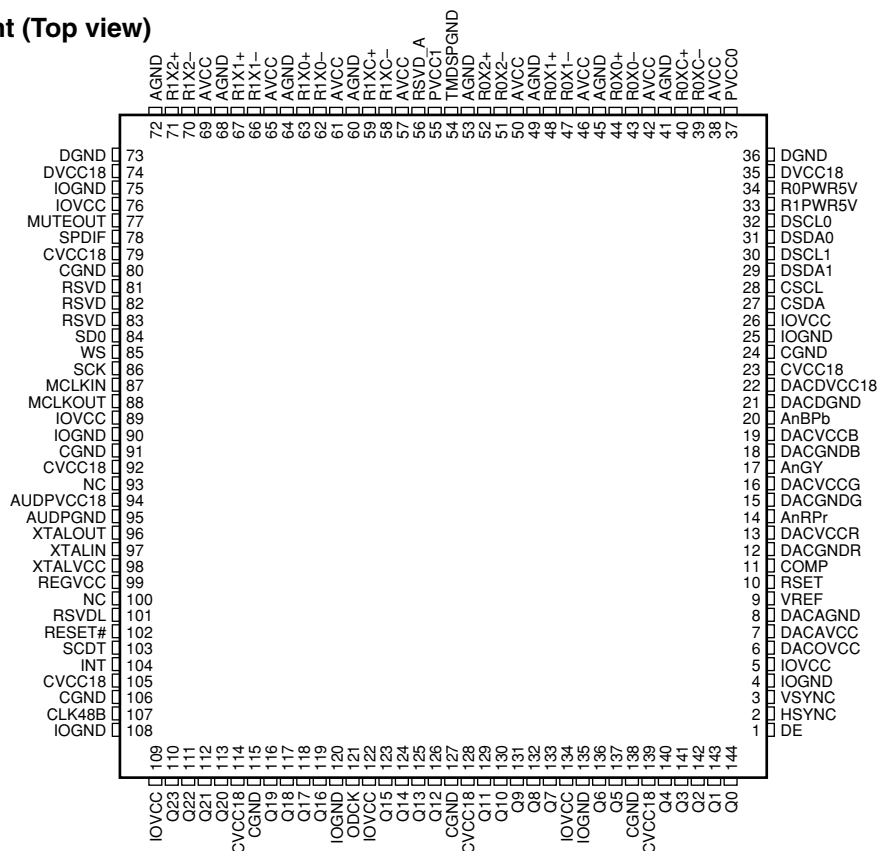
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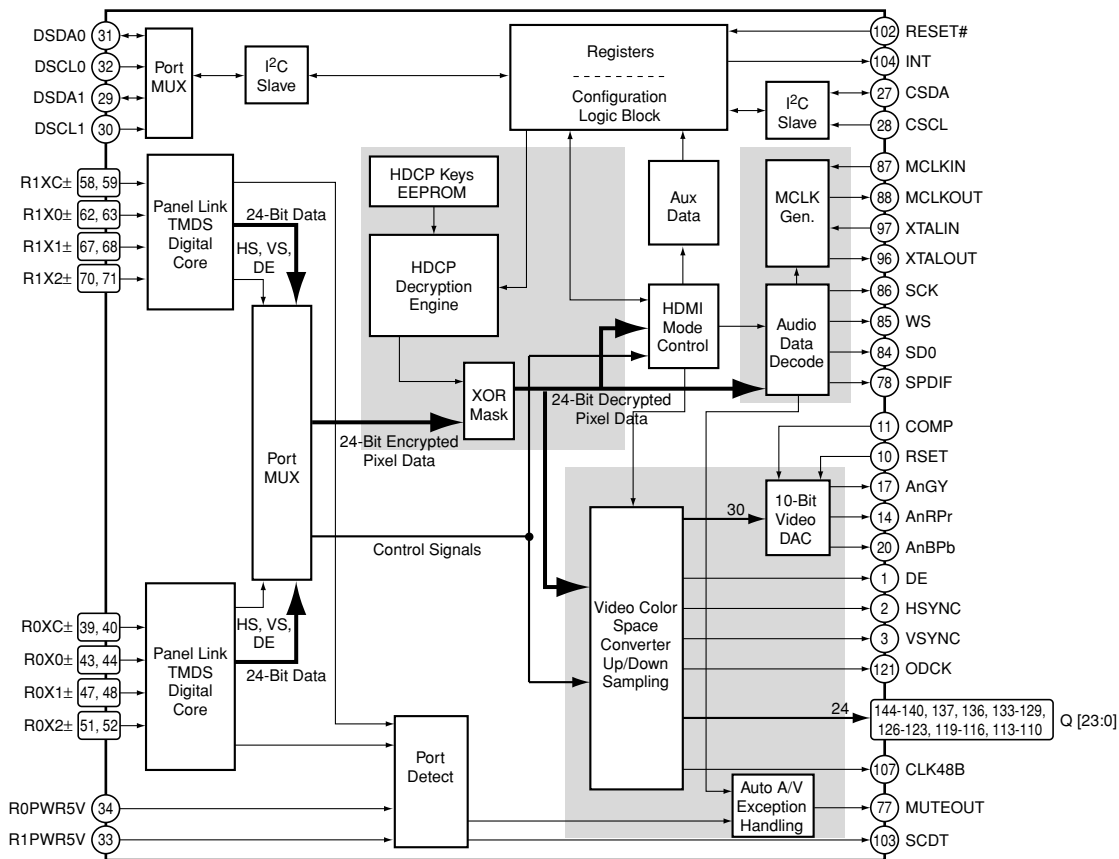
SII9021CTU (MR MAIN ASSY : IC6404)

• HDMI Rx

Pin Arrangement (Top view)



Block Diagram



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● Pin Function

No.	Pin Name	I/O	Pin Function
1	DE	O	Data enable
2	HSYNC	O	Horizontal sync output control signal
3	VSYNC	O	Vertical sync output control signal
4	IOGND	–	Input / output pin ground
5	IOVCC	–	Input / output pin VCC
6	DACOVCC	–	DAC output VCC
7	DACAVCC	–	DAC analog VCC
8	DACAGND	–	DAC analog ground
9	VREF	–	–
10	RSET	–	Full scale adjust resistor
11	COMP	–	Compensation
12	DACGNDR	–	DAC red ground
13	DACVCCR	–	DAC red VDD
14	AnRPr	O	Analog video red, Pr output
15	DACGNDG	–	DAC green ground
16	DACVCCG	–	DAC green VDD
17	AnGY	O	Analog video green, Y output
18	DACGNDB	–	DAC blue ground
19	DACVCCB	–	DAC blue VDD
20	AnBPb	O	Analog video blue, Pb output
21	DACDGND	–	DAC digital ground
22	DACDVCC18	–	DAC digital VCC
23	CVCC18	–	Digital logic VCC
24	CGND	–	Digital logic ground
25	IOGND	–	Input / output pin ground
26	IOVCC	–	Input / output pin VCC
27	CSDA	I/O	Configuration I ² C data
28	CSCL	I	Configuration I ² C clock
29	DSDA1	I/O	DDC I ² C data for port 1
30	DSCL1	I	DDC I ² C clock for port 1
31	DSDA0	I/O	DDC I ² C data for port 0
32	DSCL0	I	DDC I ² C clock for port 0
33	R1PWR5V	I	Port 1 transmitter detect
34	R0PWR5V	I	Port 0 transmitter detect
35	DVCC18	–	ACR PLL digital VCC
36	DGND	–	ACR PLL ground
37	PVCC0	–	TMDS port 0 PLL VCC
38	AVCC	–	TMDS analog VCC
39	R0XC–	I	TMDS input clock
40	R0XC+	I	TMDS input clock
41	AGND	–	TMDS analog ground
42	AVCC	–	TMDS analog VCC
43	R0X0–	I	TMDS input data
44	R0X0+	I	TMDS input data
45	AGND	–	TMDS analog ground
46	AVCC	–	TMDS analog VCC
47	R0X1–	I	TMDS input data
48	R0X1+	I	TMDS input data
49	AGND	–	TMDS analog ground
50	AVCC	–	TMDS analog VCC

No.	Pin Name	I/O	Pin Function
51	R0X2-	I	TMDS input data
52	R0X2+	I	TMDS input data
53	AGND	-	TMDS analog ground
54	TMDSPGND	-	TMDS PLL ground
55	PVCC1	-	TMDS port 1 PLL VCC
56	RSVD_A	-	Reserved pin
57	AVCC	-	TMDS analog VCC
58	R1XC-	I	TMDS input clock
59	R1XC+	I	TMDS input clock
60	AGND	-	TMDS analog ground
61	AVCC	-	TMDS analog VCC
62	R1X0-	I	TMDS input data
63	R1X0+	I	TMDS input data
64	AGND	-	TMDS analog ground
65	AVCC	-	TMDS analog VCC
66	R1X1-	I	TMDS input data
67	R1X1+	I	TMDS input data
68	AGND	-	TMDS analog ground
69	AVCC	-	TMDS analog VCC
70	R1X2-	I	TMDS input data
71	R1X2+	I	TMDS input data
72	AGND	-	TMDS analog ground
73	DGND	-	ACR PLL ground
74	DVCC18	-	ACR PLL digital VCC
75	IOGND	-	Input / output pin ground
76	IOVCC	-	Input / output pin VCC
77	MUTEOUT	O	Mute audio output
78	SPDIF	O	S/PDIF audio output
79	CVCC18	-	Digital logic VCC
80	CGND	-	Digital logic ground
81	RSVD	O	-
82	RSVD	O	-
83	RSVD	O	-
84	SD0	O	I ² S serial data output
85	WS	O	I ² S word select output
86	SCK	O	I ² S serial clock output
87	MCLKIN	I	Audio master clock input reference
88	MCLKOUT	O	Audio master clock output
89	IOVCC	-	Input / output pin VCC
90	IOGND	-	Input / output pin ground
91	CGND	-	Digital logic ground
92	CVCC18	-	Digital logic VCC
93	NC	-	No connection
94	AUDPVCC18	-	ACR PLL VCC
95	AUDPGND	-	ACR PLL ground
96	XTALOUT	O	Crystal clock output
97	XTALIN	I	Crystal clock input
98	XTALVCC	-	ACR PLL crystal input VCC
99	REGVCC	-	ACR PLL regulator VCC
100	NC	-	No connection

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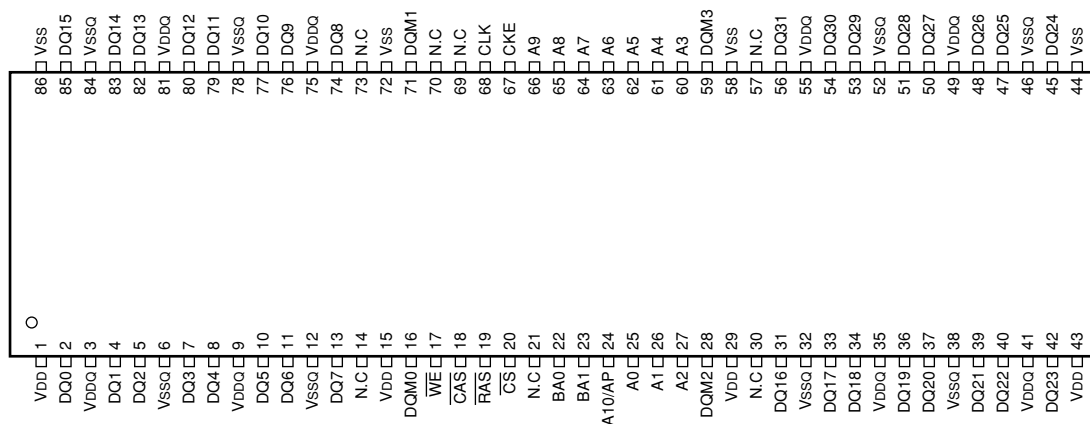
No.	Pin Name	I/O	Pin Function
101	RSVDL	I	Reserved, must be tied LOW
102	RESET#	I	Reset pin, active LOW
103	SCDT	O	Indicates active video at HDMI input port
104	INT	O	Interrupt output
105	CVCC18	–	Digital logic VCC
106	CGND	–	Digital logic ground
107	CLK48B	I/O	Data bus latch enable
108	IOGND	–	Input / output pin ground
109	IOVCC	–	Input / output pin VCC
110	Q23	O	24-bit output pixel data bus
111	Q22	O	24-bit output pixel data bus
112	Q21	O	24-bit output pixel data bus
113	Q20	O	24-bit output pixel data bus
114	CVCC18	–	Digital logic VCC
115	CGND	–	Digital logic ground
116	Q19	O	24-bit output pixel data bus
117	Q18	O	24-bit output pixel data bus
118	Q17	O	24-bit output pixel data bus
119	Q16	O	24-bit output pixel data bus
120	IOGND	–	Input / output pin ground
121	ODCK	O	Output data clock
122	IOVCC	–	Input / output pin VCC
123	Q15	O	24-bit output pixel data bus
124	Q14	O	24-bit output pixel data bus
125	Q13	O	24-bit output pixel data bus
126	Q12	O	24-bit output pixel data bus
127	CGND	–	Digital logic ground
128	CVCC18	–	Digital logic VCC
129	Q11	O	24-bit output pixel data bus
130	Q10	O	24-bit output pixel data bus
131	Q9	O	24-bit output pixel data bus
132	Q8	O	24-bit output pixel data bus
133	Q7	O	24-bit output pixel data bus
134	IOVCC	–	Input / output pin VCC
135	IOGND	–	Input / output pin ground
136	Q6	O	24-bit output pixel data bus
137	Q5	O	24-bit output pixel data bus
138	CGND	–	Digital logic ground
139	CVCC18	–	Digital logic VCC
140	Q4	O	24-bit output pixel data bus
141	Q3	O	24-bit output pixel data bus
142	Q2	O	24-bit output pixel data bus
143	Q1	O	24-bit output pixel data bus
144	Q0	O	24-bit output pixel data bus

F

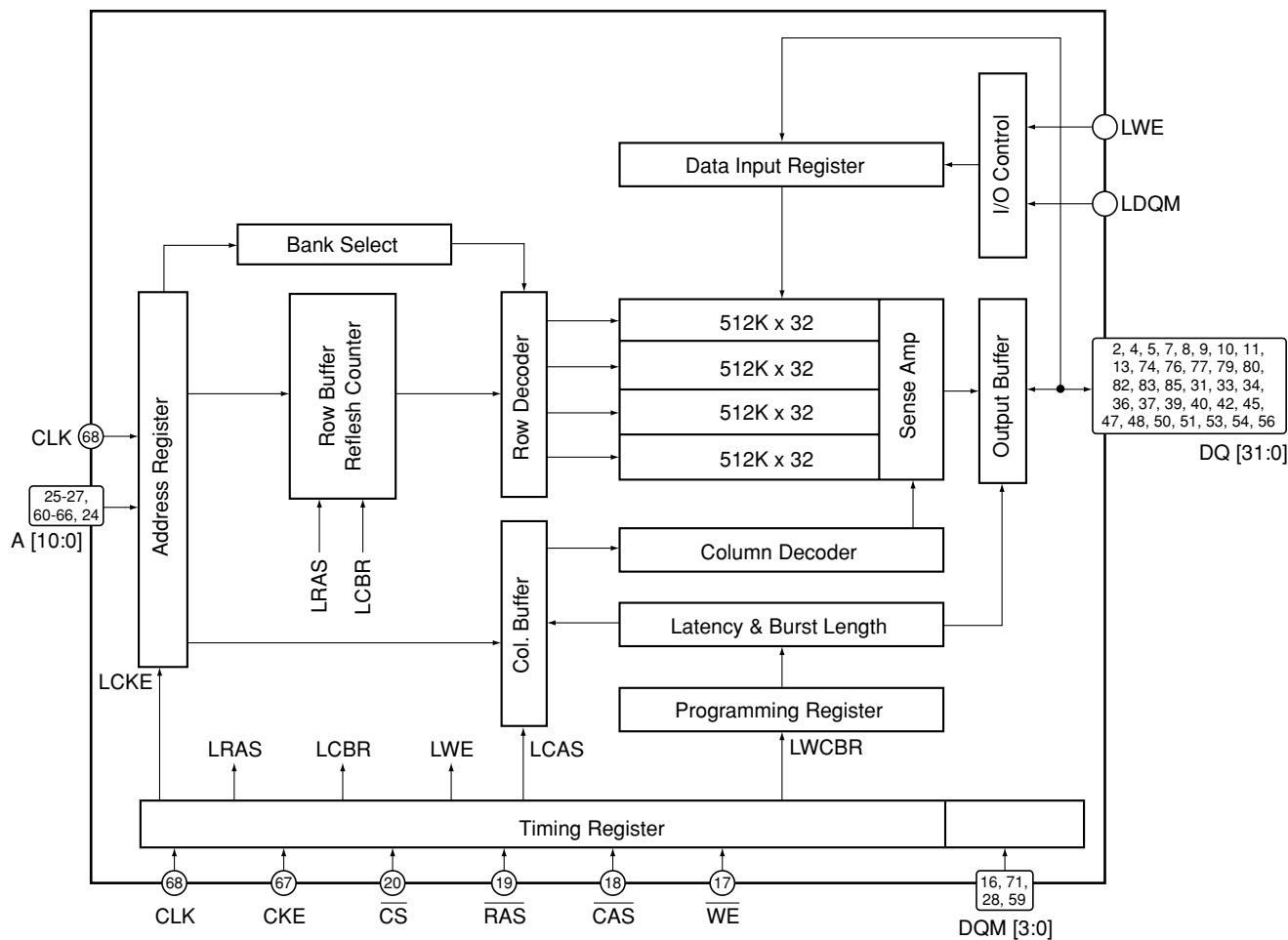
K4S643232H-TC60 (MR MAIN ASSY : IC6801, IC6802)

• 64M SDRAM (for Silvia)

● Pin Arrangement (Top view)



● Block Diagram



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● Pin Function

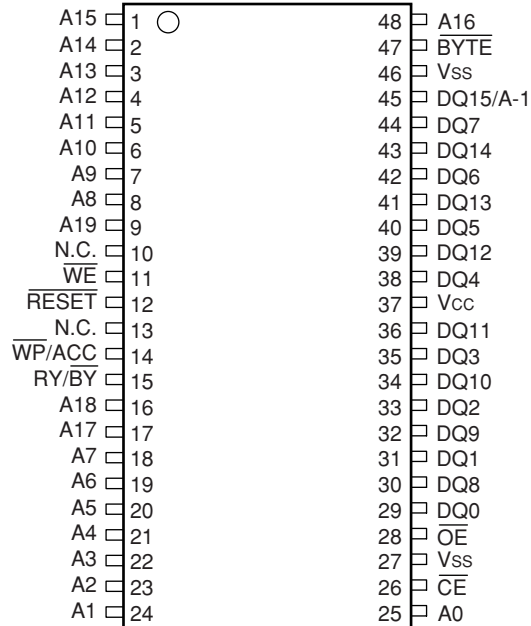
No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	V _{DD}	–	Power supply	44	V _{SS}	–	Ground
2	DQ0	I/O	Data input / output	45	DQ24	I/O	Data input / output
3	V _{DDQ}	–	Power supply for data output	46	V _{SSQ}	–	Ground for data output
4	DQ1	I/O	Data input / output	47	DQ25	I/O	Data input / output
5	DQ2	I/O	Data input / output	48	DQ26	I/O	Data input / output
6	V _{SSQ}	–	Ground for data output	49	V _{DDQ}	–	Power supply for data output
7	DQ3	I/O	Data input / output	50	DQ27	I/O	Data input / output
8	DQ4	I/O	Data input / output	51	DQ28	I/O	Data input / output
9	V _{DDQ}	–	Power supply for data output	52	V _{SSQ}	–	Ground for data output
10	DQ5	I/O	Data input / output	53	DQ29	I/O	Data input / output
11	DQ6	I/O	Data input / output	54	DQ30	I/O	Data input / output
12	V _{SSQ}	–	Ground for data output	55	V _{DDQ}	–	Power supply for data output
13	DQ7	I/O	Data input / output	56	DQ31	I/O	Data input / output
14	N.C	–	No connection	57	N.C	–	No connection
15	V _{DD}	–	Power supply	58	V _{SS}	–	Ground
16	DQM0	I	Data input / output mask input	59	DQM3	I	Data input / output mask input
17	$\overline{\text{WE}}$	I	Write enable input	60	A3	I	Address input
18	$\overline{\text{CAS}}$	I	Column address strobe input	61	A4	I	Address input
19	$\overline{\text{RAS}}$	I	Row address strobe input	62	A5	I	Address input
20	$\overline{\text{CS}}$	I	Chip select input	63	A6	I	Address input
21	N.C	–	No connection	64	A7	I	Address input
22	BA0	I	Bank select address input	65	A8	I	Address input
23	BA1	I	Bank select address input	66	A9	I	Address input
24	A10/AP	I	Address input	67	CKE	I	Clock enable input
25	A0	I	Address input	68	CLK	I	System clock input
26	A1	I	Address input	69	N.C	–	No connection
27	A2	I	Address input	70	N.C	–	No connection
28	DQM2	I	Data input / output mask input	71	DQM1	I	Data input / output mask input
29	V _{DD}	–	Power supply	72	V _{SS}	–	Ground
30	N.C	–	No connection	73	N.C	–	No connection
31	DQ16	I/O	Data input / output	74	DQ8	I/O	Data input / output
32	V _{SSQ}	–	Ground for data output	75	V _{DDQ}	–	Power supply for data output
33	DQ17	I/O	Data input / output	76	DQ9	I/O	Data input / output
34	DQ18	I/O	Data input / output	77	DQ10	I/O	Data input / output
35	V _{DDQ}	–	Power supply for data output	78	V _{SSQ}	–	Ground for data output
36	DQ19	I/O	Data input / output	79	DQ11	I/O	Data input / output
37	DQ20	I/O	Data input / output	80	DQ12	I/O	Data input / output
38	V _{SSQ}	–	Ground for data output	81	V _{DDQ}	–	Power supply for data output
39	DQ21	I/O	Data input / output	82	DQ13	I/O	Data input / output
40	DQ22	I/O	Data input / output	83	DQ14	I/O	Data input / output
41	V _{DDQ}	–	Power supply for data output	84	V _{SSQ}	–	Ground for data output
42	DQ23	I/O	Data input / output	85	DQ15	I/O	Data input / output
43	V _{DD}	–	Power supply	86	V _{SS}	–	Ground

F

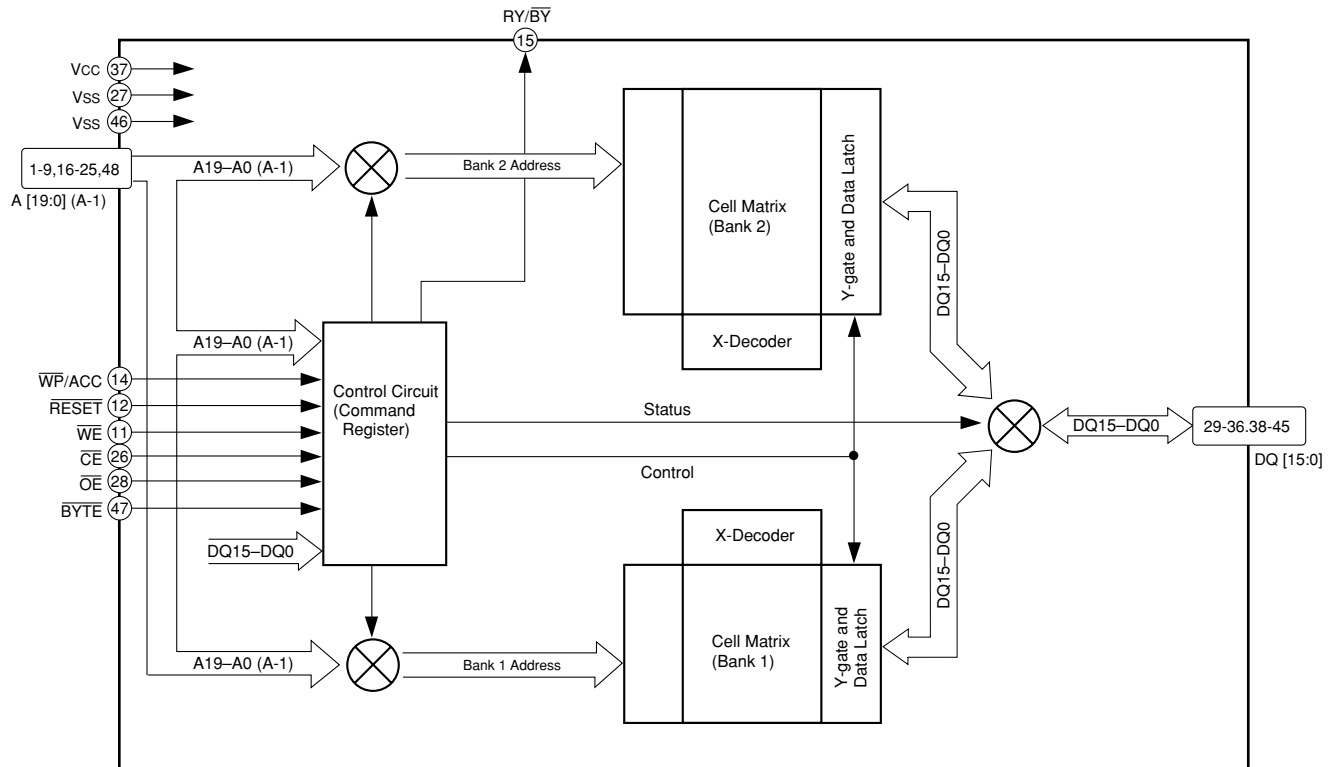
■ MBM29DL162TE70TN (MR MAIN ASSY : IC5207, IC7002)

• 16M Flash for Carrera MANTA

● Pin Arrangement (Top view)



● Block Diagram



A

● Pin Function

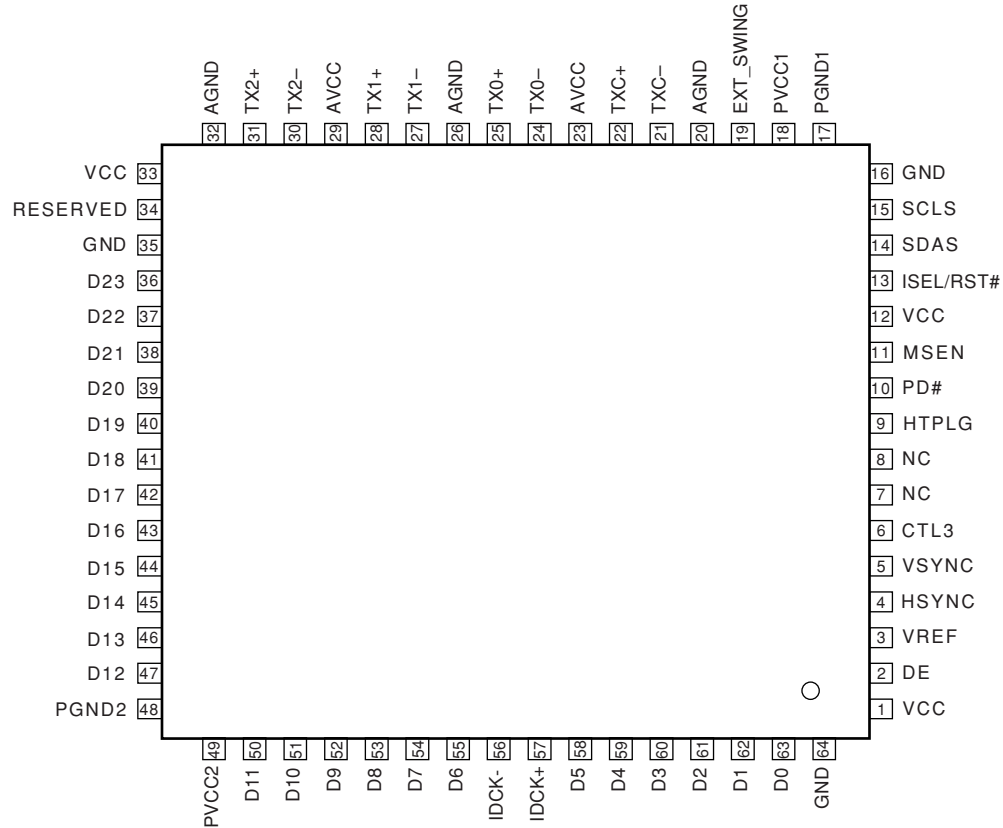
No.	Pin Name	I/O	Pin Function
1	A15	I	Address input
2	A14	I	Address input
3	A13	I	Address input
4	A12	I	Address input
5	A11	I	Address input
6	A10	I	Address input
7	A9	I	Address input
8	A8	I	Address input
9	A19	I	Address input
10	N.C.	I	No connection
11	\overline{WE}	I	Write enable input
12	\overline{RESET}	I	Hardware reset
13	N.C.	—	No connection
14	\overline{WP}/ACC	I	Hardware write protect / Acceleration
15	RY/\overline{BY}	O	Ready / Busy output
16	A18	I	Address input
17	A17	I	Address input
18	A7	I	Address input
19	A6	I	Address input
20	A5	I	Address input
21	A4	I	Address input
22	A3	I	Address input
23	A2	I	Address input
24	A1	I	Address input
25	A0	I	Address input
26	\overline{CE}	I	Chip enable input
27	V _{ss}	—	Ground
28	\overline{OE}	I	Output enable input
29	DQ0	I/O	Data input / output
30	DQ8	I/O	Data input / output
31	DQ1	I/O	Data input / output
32	DQ9	I/O	Data input / output
33	DQ2	I/O	Data input / output
34	DQ10	I/O	Data input / output
35	DQ3	I/O	Data input / output
36	DQ11	I/O	Data input / output
37	V _{cc}	—	Power supply
38	DQ4	I/O	Data input / output
39	DQ12	I/O	Data input / output
40	DQ5	I/O	Data input / output
41	DQ13	I/O	Data input / output
42	DQ6	I/O	Data input / output
43	DQ14	I/O	Data input / output
44	DQ7	I/O	Data input / output
45	DQ15/A-1	I/O	Data input / output / Address input
46	V _{ss}	—	Ground
47	\overline{BYTE}	I	Selects 8-bit or 16-bit mode
48	A16	I	Address input

F

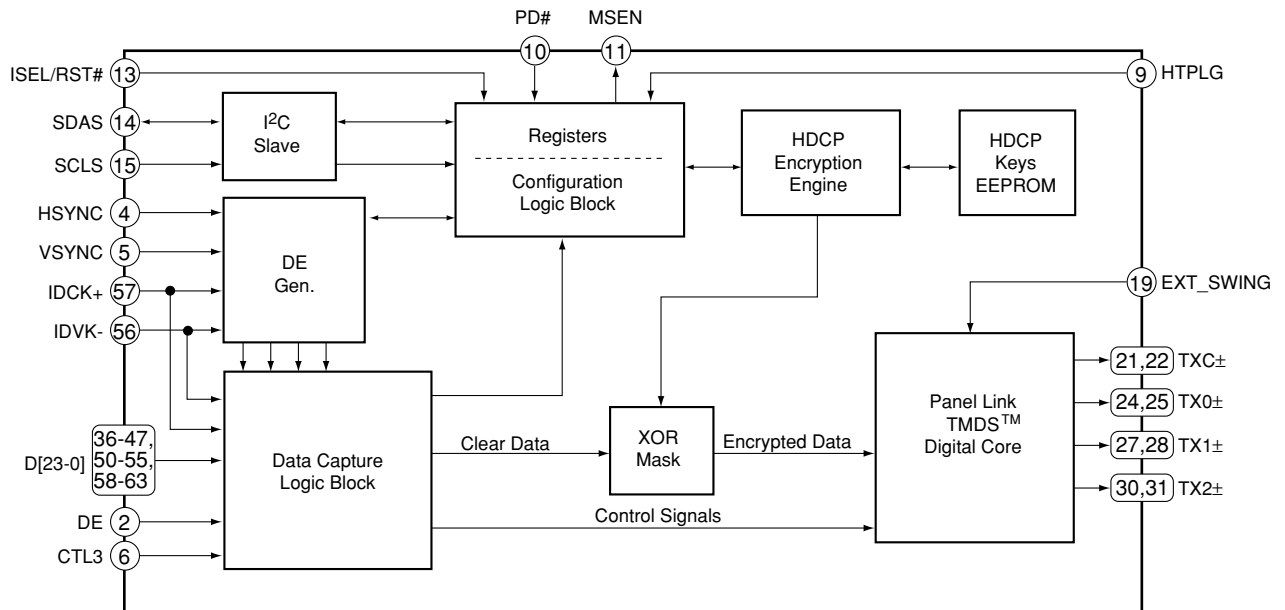
■ SII170BCLG64 (MR MAIN ASSY : IC7202)

• DVI Tx

● Pin Arrangement (Top view)



● Block Diagram



A

● Pin Function

No.	Pin Name	I/O	Pin Function
1	VCC	–	Digital power supply (3.3V)
2	DE	I	Data enable
3	VREF	I	3.3V fixed
4	HSYNC	I	Horizontal sync. control signal input
5	VSYNC	I	Vertical sync. control signal input
6	CTL3	I	External CTL3 input
7	NC	–	No connection
8	NC	–	No connection
9	HTPLG	I	Monitor charge input
10	PD#	I	Power down input (Active low)
11	MSEN	O	Monitor sense output (open-collector output)
12	VCC	–	Digital power supply (3.3V)
13	ISEL/RST#	I	I2C interface selecting input High: I2C interface is active
14	SDAS	I/O	DDC I2C data input/output
15	SCLS	I	DDC I2C clock input
16	GND	–	Digital ground
17	PGND1	–	PLL analog ground
18	PVCC1	–	Analog power supply for PLL of primary side (3.3V)
19	EXT_SWING	I	Voltage regulation adjustment
20	AGND	–	Analog ground
21	TXC–	O	Differential signal clock output of TMDS Low voltage
22	TXC+	O	Differential signal clock output of TMDS Low voltage
23	AVCC	–	Analog power supply (3.3V)
24	TX0–	O	Differential signal clock output of TMDS Low voltage
25	TX0+	O	Differential signal clock output of TMDS Low voltage
26	AGND	–	Analog ground
27	TX1–	O	Differential signal clock output of TMDS Low voltage
28	TX1+	O	Differential signal clock output of TMDS Low voltage
29	AVCC	–	Analog power supply (3.3V)
30	TX2–	O	Differential signal clock output of TMDS Low voltage
31	TX2+	O	Differential signal clock output of TMDS Low voltage
32	AGND	–	Analog ground
33	VCC	–	Digital power supply (3.3V)
34	RESERVED	I	Reserved pin for Silicon Image Normally, fixed to low.
35	GND	–	Digital ground
36	D23	I	24-bit pixel bus input
37	D22	I	24-bit pixel bus input
38	D21	I	24-bit pixel bus input
39	D20	I	24-bit pixel bus input
40	D19	I	24-bit pixel bus input

F

No.	Pin Name	I/O	Pin Function
41	D18	I	24-bit pixel bus input
42	D17	I	24-bit pixel bus input
43	D16	I	24-bit pixel bus input
44	D15	I	24-bit pixel bus input
45	D14	I	24-bit pixel bus input
46	D13	I	24-bit pixel bus input
47	D12	I	24-bit pixel bus input
48	PGND2	–	PLL analog ground
49	PVCC2	–	Analog power supply for filter PLL (3.3V)
50	D11	I	24-bit / 12-bit pixel bus input
51	D10	I	24-bit / 12-bit pixel bus input
52	D9	I	24-bit / 12-bit pixel bus input
53	D8	I	24-bit / 12-bit pixel bus input
54	D7	I	24-bit / 12-bit pixel bus input
55	D6	I	24-bit / 12-bit pixel bus input
56	IDCK–	I	Data clock - input
57	IDCK+	I	Data clock + input
58	D5	I	24-bit / 12-bit pixel bus input
59	D4	I	24-bit / 12-bit pixel bus input
60	D3	I	24-bit / 12-bit pixel bus input
61	D2	I	24-bit / 12-bit pixel bus input
62	D1	I	24-bit / 12-bit pixel bus input
63	D0	I	24-bit / 12-bit pixel bus input
64	GND	–	Digital ground

A ■ **AXY1117 (MR MAIN ASSY: U4201)**

• 3 Outputs DD Control Unit

● **Pin Arrangement**

■

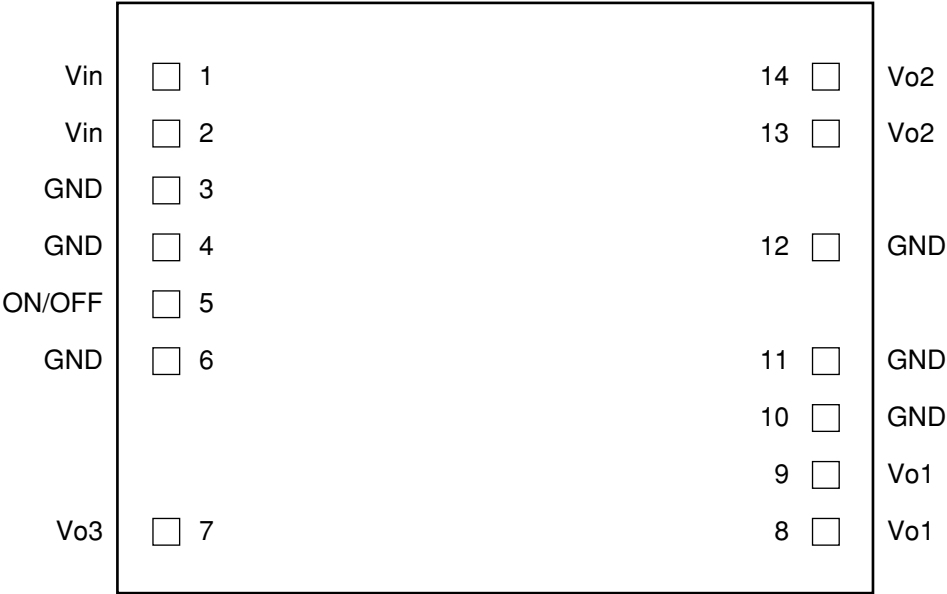
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C

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D



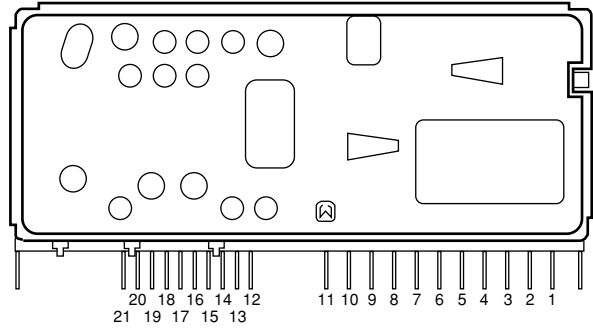
● **Pin Function**

No.	Pin Name	Pin Function
1	Vin	Input
2	Vin	
3	GND	Ground for input side
4	GND	
5	ON/OFF	Output ON/OFF
6	GND	Ground for output side
7	Vo3	1.8V output
8	Vo1	3.3V output
9	Vo1	3.3V output
10	GND	Ground for output side
11	GND	
12	GND	
13	Vo2	1.2V output
14	Vo2	1.2V output

■ AXF1130 (MR MAIN ASSY : U4401)

• Front End

● Pin Arrangement



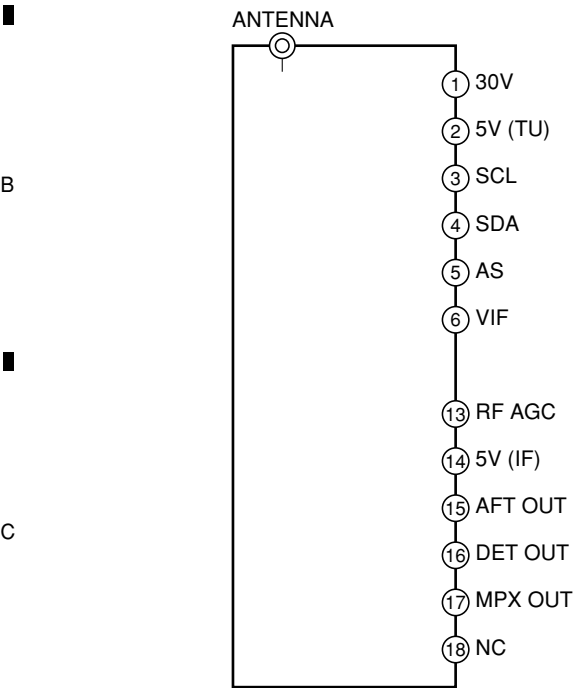
● Pin Function

No.	Pin Name	Pin Function
1	AGC	AGC (4.0V gain max.)
2	TU	Power supply for tuner
3	ADRS	Terminal for I ² C bus control
4	SCL	
5	SDA	
6	NC	No connection
7	V SUPPLY	5.0V
8	IF SW	0V/5.0V
9	BTL	30.0V
10	NC	No connection
11	IF1	IF
12	NC	No connection
13	BV	5.0V
14	AUDIO OUT	Audio output
15	GND	Ground
16	AFT	AFT output
17	AGC OUT	AGC output
18	VIDEO OUT	Video output
19	NC	No connection
20	GND	Ground
21	NC	No connection

A

AXF1148 (MR MAIN ASSY : U4402)
• Front End

● Pin Arrangement



● Pin Function

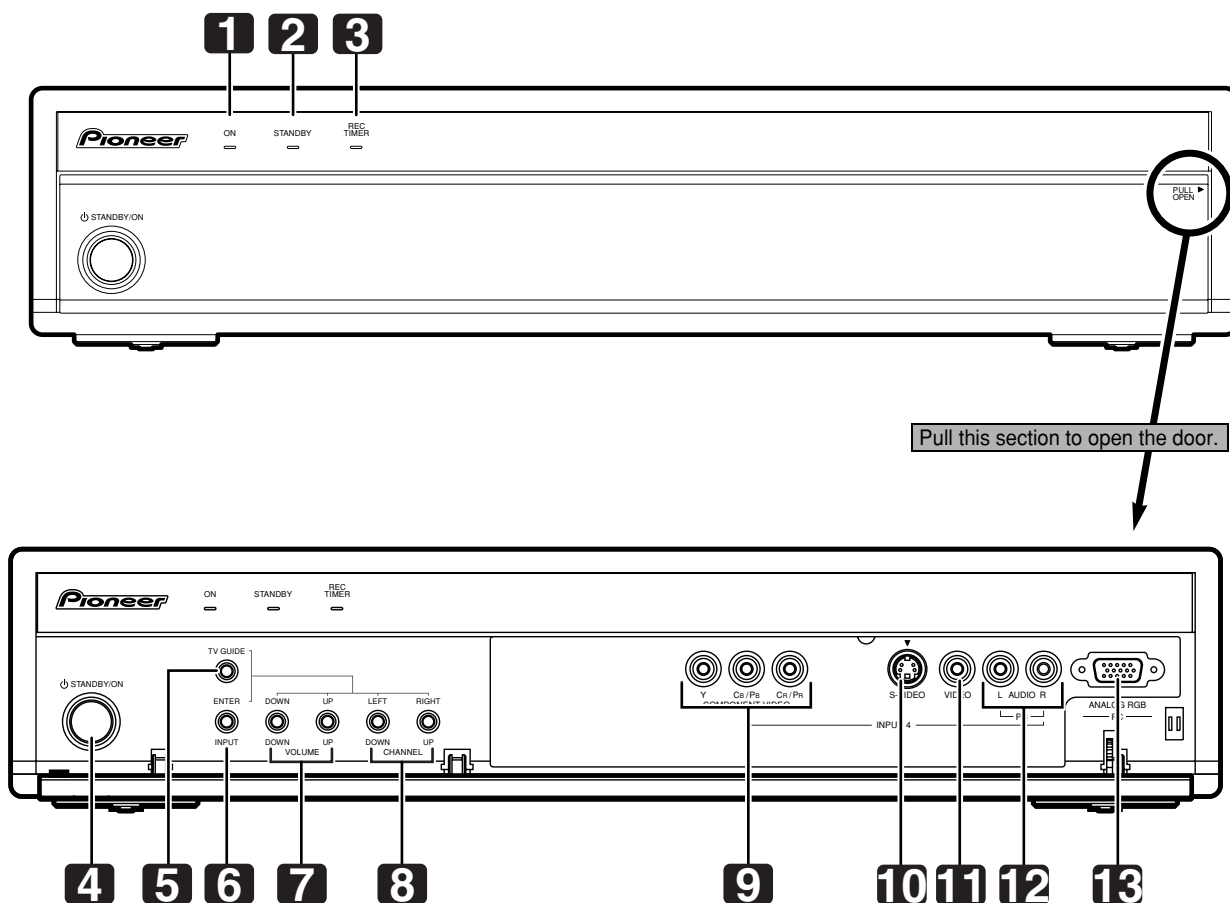
D

No.	Pin Name	Pin Function
1	30V	Power supply for 30V
2	5V (TU)	Power supply for tuner
3	SCL	Terminal for CH selection serial data
4	SDA	
5	AS	Address selection
6	VIF	VIF output
13	RF AGC	RF AGC terminal
14	5V (IF)	Power supply for IF
15	AFT OUT	Analog AFT output
16	DET OUT	VIDEO output (Typical = 1.0Vp-p)
17	MPX OUT	MPX output
18	NC	No connection

E

8. PANEL FACILITIES

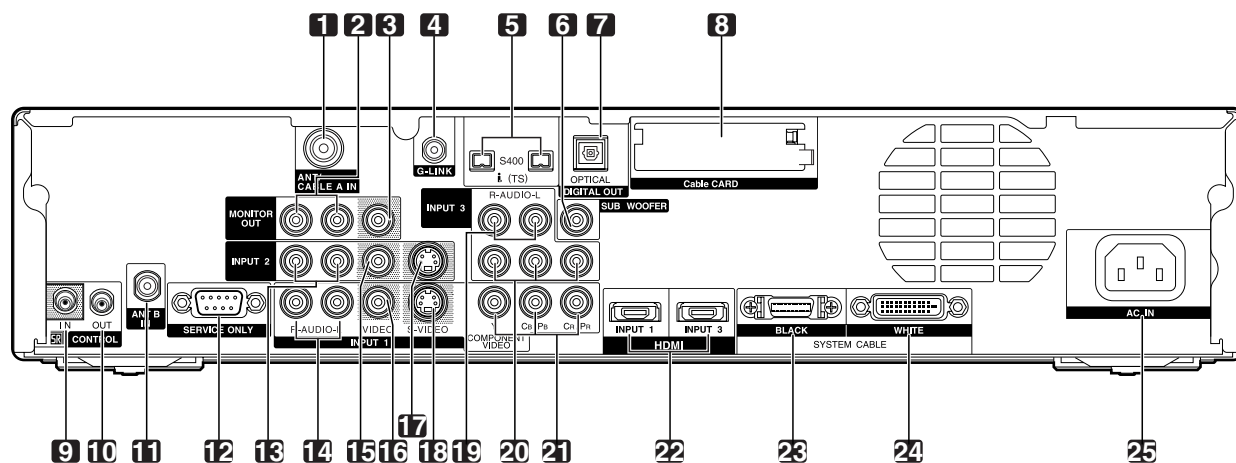
■ Front view



- 1 POWER ON indicator
- 2 STANDBY indicator
- 3 REC TIMER indicator
- 4 **STANDBY/ON** button
- 5 **TV GUIDE** button*
- 6 **INPUT** button (**ENTER** button*)
- 7 **VOLUME UP/DOWN** buttons (**UP/DOWN** buttons*)
- 8 **CHANNEL UP/DOWN** buttons (**LEFT/RIGHT** buttons*)

- 9 INPUT 4 terminals
(COMPONENT VIDEO: Y, CB/PB, CR/PR)
 - 10 INPUT 4 terminal (S-VIDEO)
 - 11 INPUT 4 terminal (VIDEO)
 - 12 INPUT 4/PC terminals (AUDIO)
 - 13 PC INPUT terminal (ANALOG RGB)
- The buttons with asterisks (*) can operate the TV Guide On Screen™ system.

Rear view

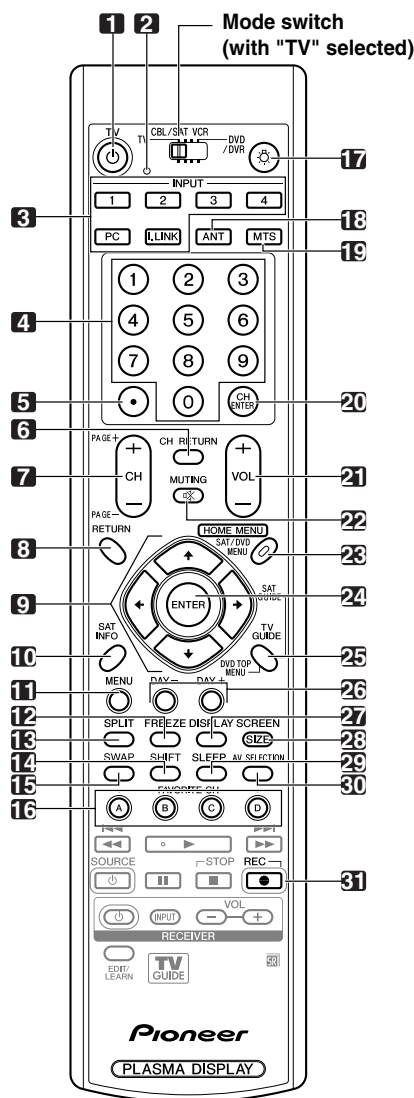


- 1 ANT/CABLE A IN terminal
- 2 MONITOR OUT terminals (AUDIO)
- 3 MONITOR OUT terminal (VIDEO)
- 4 G-LINK terminal
- 5 i.LINK terminals
- 6 SUB WOOFER terminal
- 7 DIGITAL OUT terminal (OPTICAL)
- 8 CableCARD™ slot
- 9 CONTROL IN terminal
- 10 CONTROL OUT terminal
- 11 ANT B IN terminal
- 12 RS-232C terminal (used for factory setup)
- 13 INPUT 2 terminals (AUDIO)
- 14 INPUT 1 terminals (AUDIO)

- 15 INPUT 2 terminal (VIDEO)
- 16 INPUT 1 terminal (VIDEO)
- 17 INPUT 2 terminal (S-VIDEO)
- 18 INPUT 1 terminal (S-VIDEO)
- 19 INPUT 3 terminals (AUDIO)
- 20 INPUT 3 terminals (COMPONENT VIDEO: Y, CB/PB, CR/PR)
- 21 INPUT 1 terminals (COMPONENT VIDEO: Y, CB/PB, CR/PR)
- 22 HDMI terminals (INPUT1/INPUT3)
- 23 SYSTEM CABLE terminal (BLACK)
- 24 SYSTEM CABLE terminal (WHITE)
- 25 AC IN terminal

■ Remote control unit

This section describes the functions of the buttons available when the mode switch has been set to TV.



- 1 **TV** : Turns on the power to the Plasma Display or places it into standby mode.
- 2 Transmission confirmation LED
- 3 **INPUT**: Selects an input source of the Plasma Display. (INPUT 1, INPUT 2, INPUT 3, INPUT 4, PC, i.LINK)
- 4 **0 - 9**: Selects the channel.
- 5 **• (dot)**: Enters a dot.
- 6 **CH RETURN**: Returns to the previous channel. This button is disabled while the TV Guide On Screen™ system is displayed.
- 7 **CH +/-**: Selects the channel.
PAGE +/- (for the TV Guide On Screen™ system): Scrolls the program listing screen vertically.
- 8 **RETURN**: Returns to the previous menu screen.
- 9 **↑/↓/←/→**: Selects a desired item on the menu screen.

- 10 **INFO**: Displays a channel banner when a TV program is being watched.
When the TV Guide On Screen™ system is in operation, displays information about the currently highlighted channel (if available).
- 11 **MENU**: Displays a panel menu in the TV Guide On Screen™ system.
- 12 **FREEZE**: Freezes a frame from a moving image. Press again to cancel the function.
- 13 **SPLIT**: Switches the screen mode among 2-screen, picture-in-picture, and single-screen.
- 14 **SHIFT**: Moves the location of the small screen when in the picture-in-picture mode.
- 15 **SWAP**: Switches between the two screens when in the 2-screen or picture-in-picture mode.
- 16 **FAVORITE CH (A, B, C, D)**:
Selects any of the four preset channels.
While watching, you can toggle the set channels by pressing **A**, **B**, **C** and **D**.
- 17 : When pressed, all buttons on the remote control unit will light. The lighting will turn off if no operations are performed within about 5 seconds.
This button is used for performing operations in dark places.
- 18 **ANT**: Selects the antenna (A, B).
- 19 **MTS**: Selects the MTS/SAP.
- 20 **CH ENTER**: Executes a channel number.
- 21 **VOL +/-**: Sets the volume.
- 22 **MUTING**: Mutes the sound.
- 23 **HOME MENU**: Displays the Home Menu screen.
- 24 **ENTER**: Executes a command.
- 25 **TV GUIDE**: Displays the TV Guide On Screen™ system.
- 26 **DAY +/-**: Jumps to the next or previous day of program listings in the TV Guide On Screen™ Listing service.
- 27 **DISPLAY**: Displays the channel information.
- 28 **SCREEN SIZE**: Selects the screen size.
- 29 **SLEEP**: Sets the sleep timer.
- 30 **AV SELECTION**: Selects audio and video settings. (AV mode: STANDARD, DYNAMIC, MOVIE, GAME, USER. PC mode: STANDARD, USER.)
- 31 **(REC)**: When using the TV Guide On Screen™ System, starts recording with a connected VCR or D-VHS recorder.

A ■ Cleaning



• Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools	Remark
Fans	Cleaning paper : GED-008	Refer to "2.3 EXTERIOR SECTION" , "7.1.2 DISASSEMBLY SECTION".

B

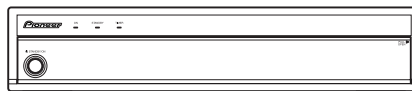
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Service Manual



PDP-R06U

ORDER NO.
ARP3280

MEDIA RECEIVER

PDP-R06U PRO-R06U

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-R06U	KUCXJ	AC 120V	
PRO-R06U	KUCXJ	AC 120V	

This service manual should be used together with the following manual(s).

Model No.	Order No.	Remarks
PDP-R06U, PRO-R06U	ARP3279	EXPLODED VIEWS, BLOCK DIAGRAM etc.



For details, refer to "Important Check Points for good servicing".

1 2 3 4

SAFETY INFORMATION



This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)

Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

C

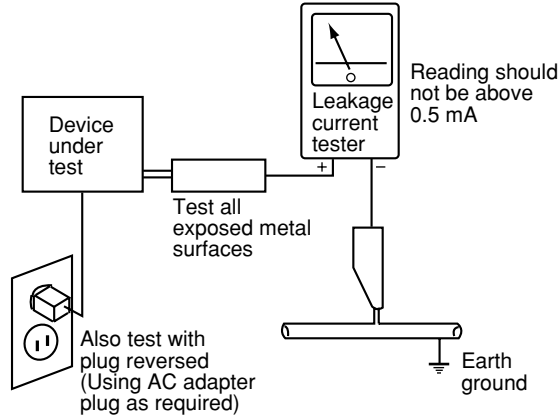
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol. Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification (addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris. Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs. In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages. If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries. Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification. Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance. Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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PDP-R06U

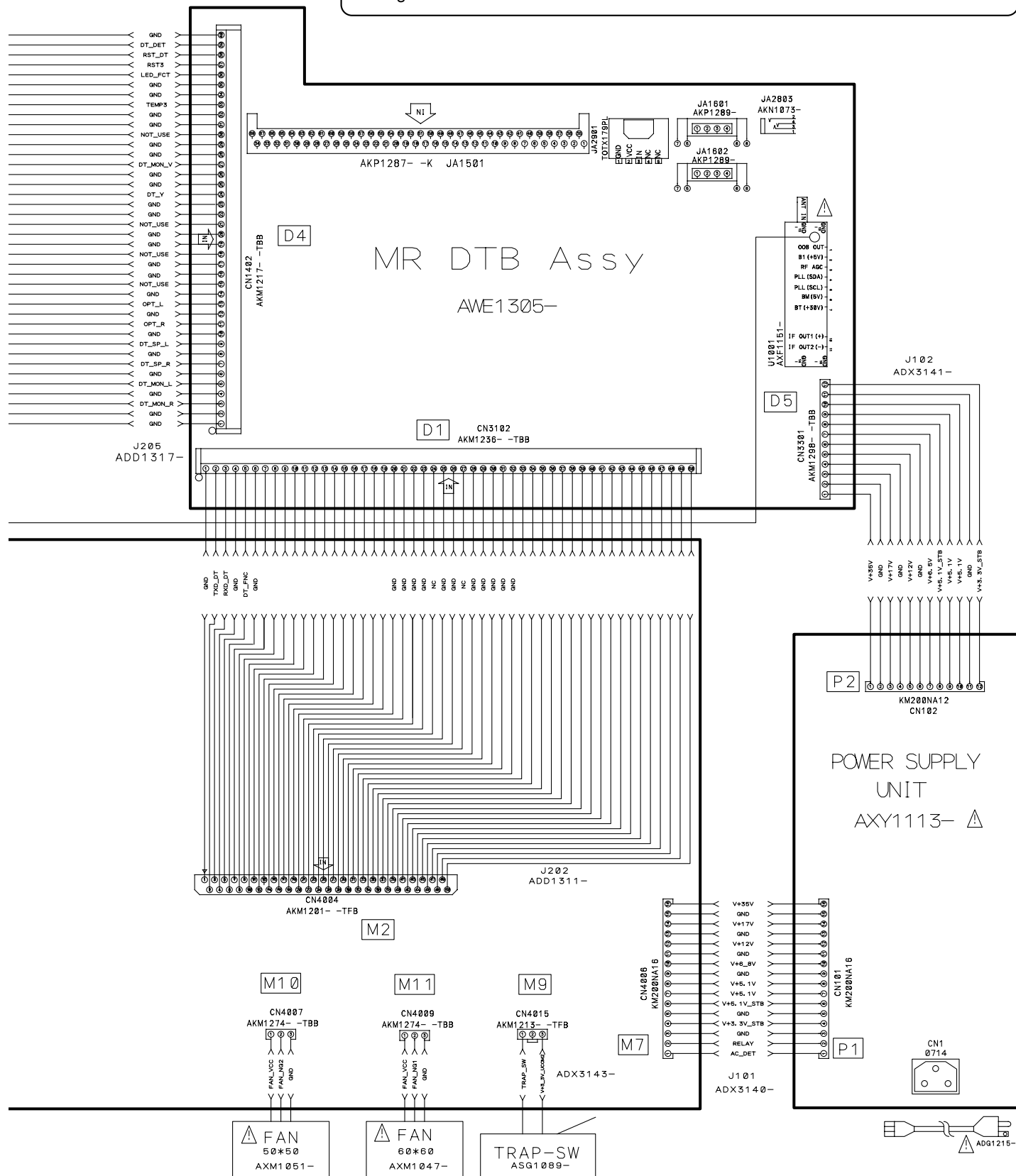
5

4

LED Assy

AWW1045

- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.



△

A • TUNER / IF BLOCK

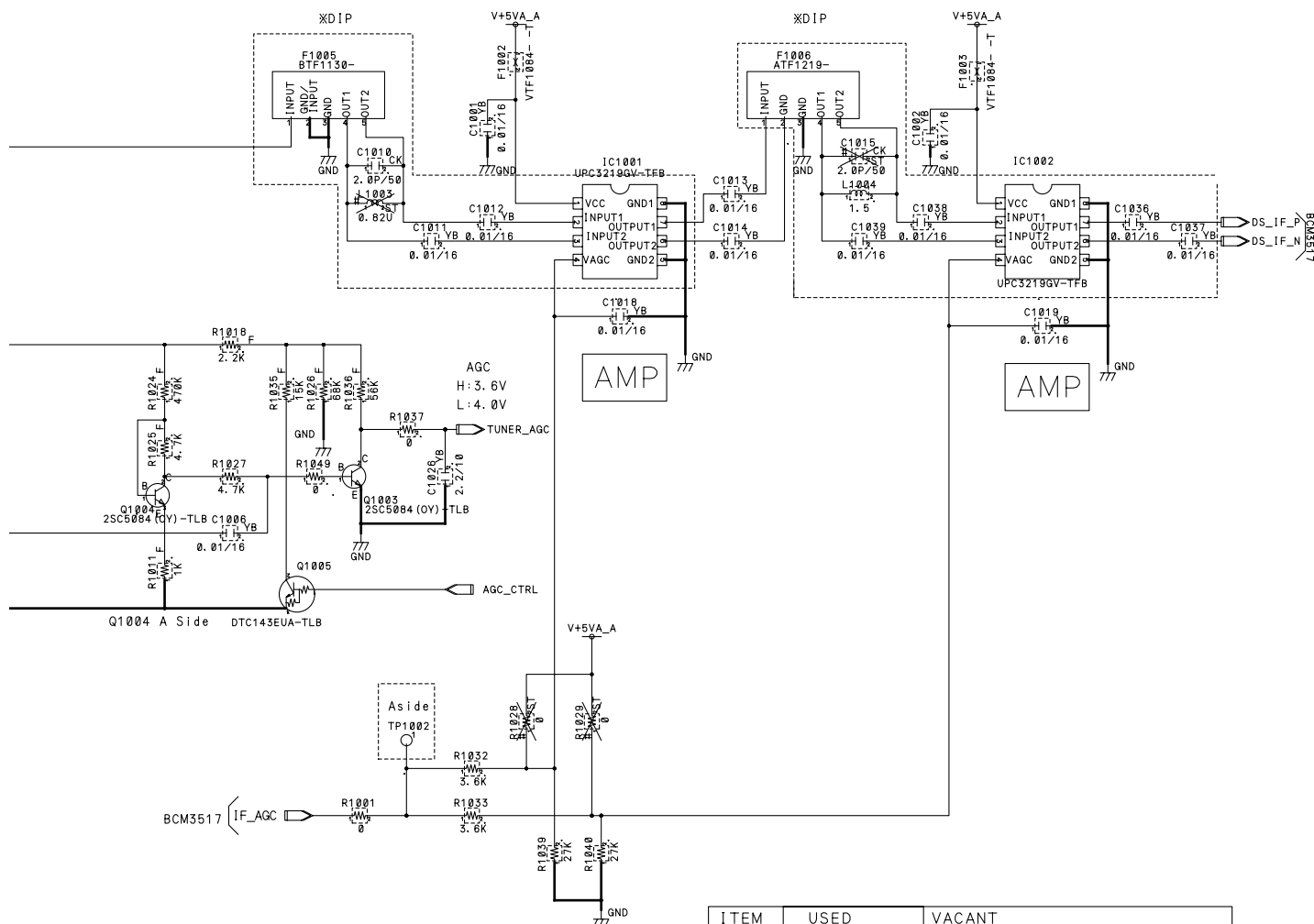


Digital
SAW<1>

Digital
SAW<2>

Fc=44MHz
BW=6MHz (3dB)

Fc=44MHz
BW=6MHz (3dB)



ITEM	USED	VACANT
C	1001-1039	1008, 1009, 1015, 1020, 1021 1030, 1032-1035
F	1002-1008	
IC	1001-1005	1003, 1004
L	1001-1007	1002, 1003
Q	1002-1007	1006
R	1001-1045	1002-1005, 1012, 1015, 1016 1028, 1029, 1034, 1041-1044
U	1001	

X: Do not mount

4

B



D

E

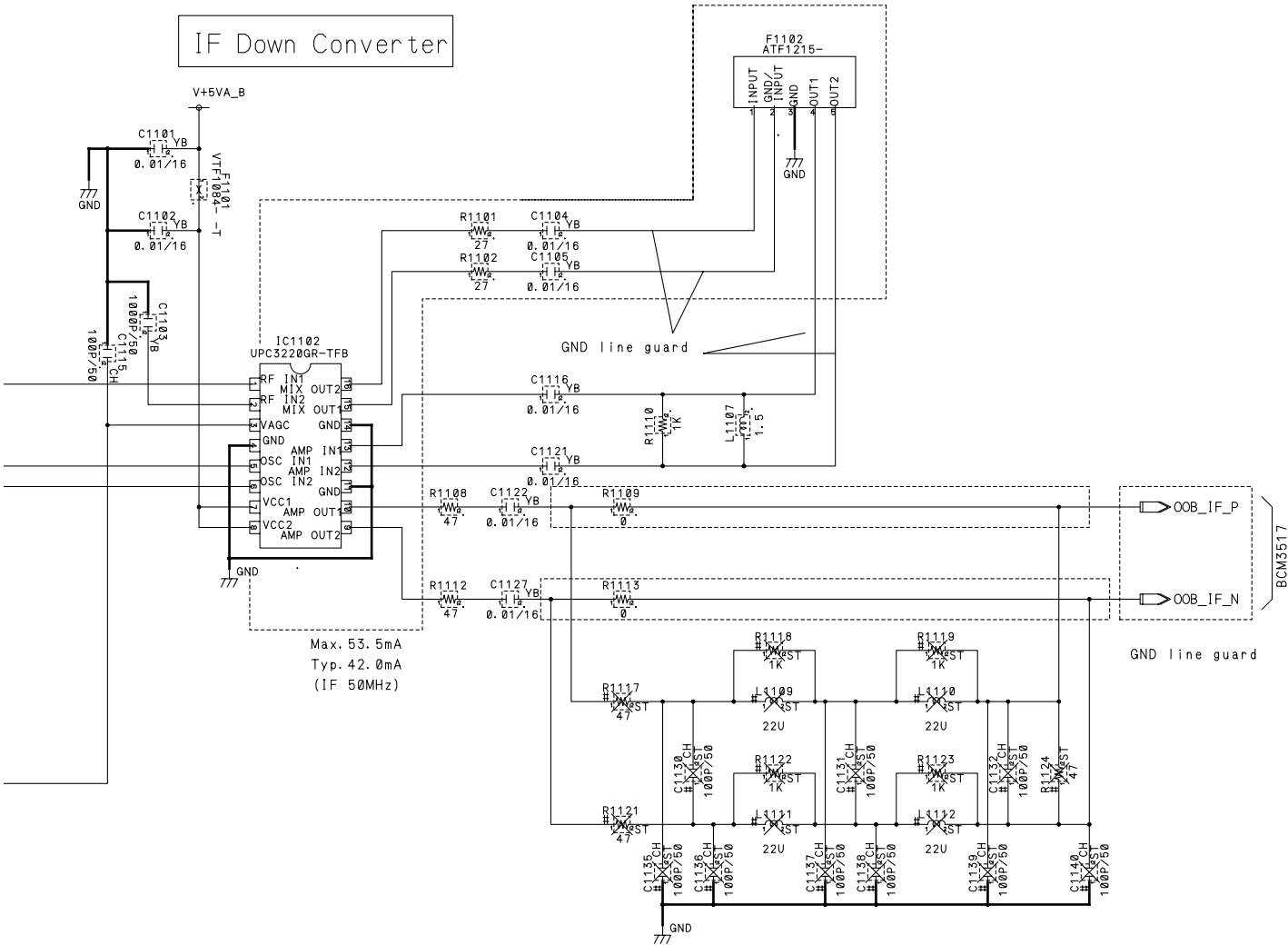
F

ITEM	USED	VACANT
C	1101-1134	1113, 1114, 1120, 1125, 1126 1130-1132
F	1101-1102	
IC	1102	
L	1102-1108	
Q	----	
R	1101-1132	1104, 1106, 1107, 1111, 1131 1117-1124, 1126-1128, 1130
-	----	

X: Don't mount

QPSK Rx

QPSK Rx
SAW Filter

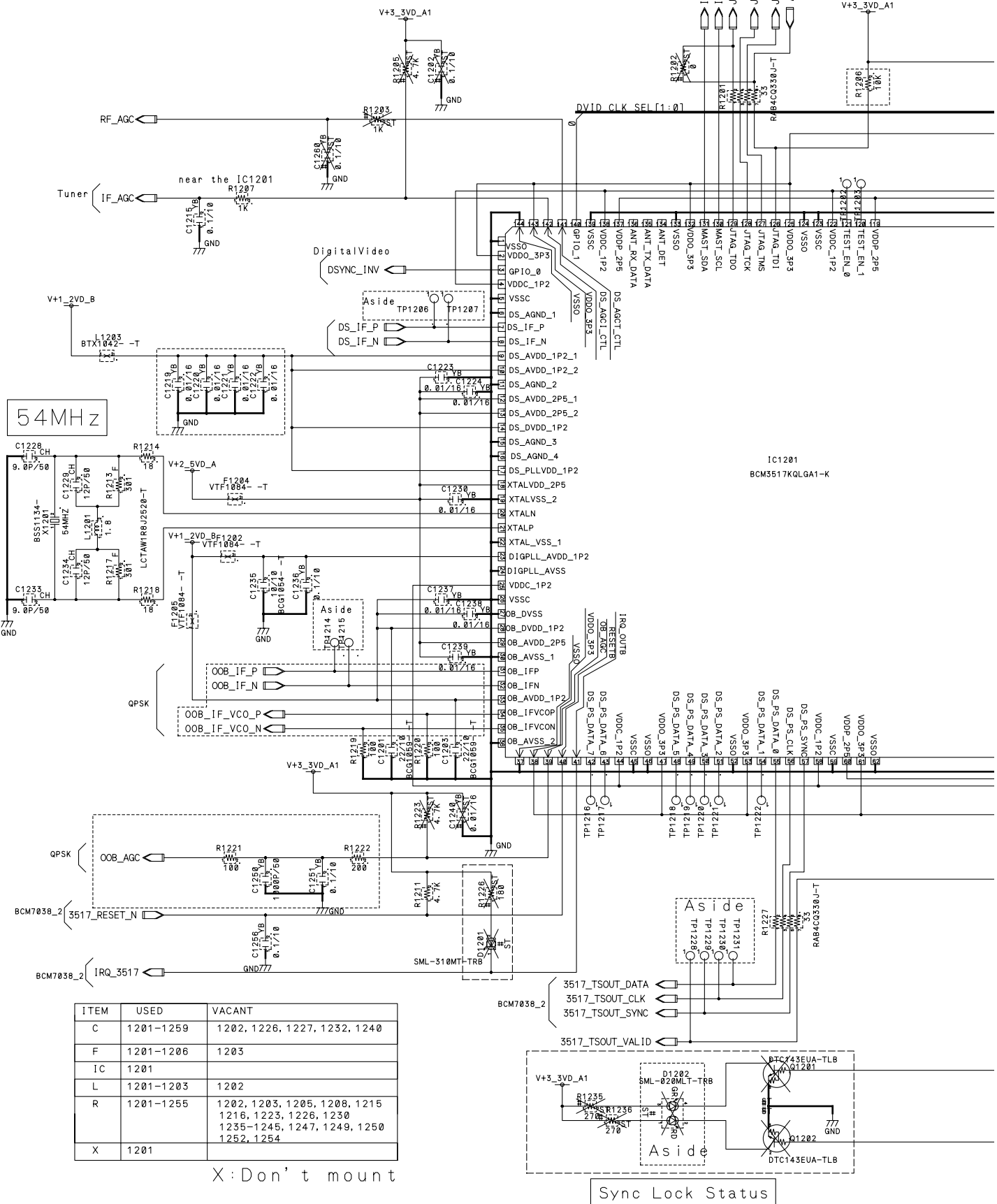


3.4 MR DTB ASSY (3/14)

MR DTB ASSY (3/14)

• FRONT / END IC BLOCK

BCM3517



ITEM	USED	VACANT
C	1201-1259	1202, 1226, 1227, 1232, 1240
F	1201-1206	1203
IC	1201	
L	1201-1203	1202
R	1201-1255	1202, 1203, 1205, 1208, 1215, 1216, 1223, 1226, 1230, 1235-1245, 1247, 1249, 1250, 1252, 1254
X	1201	

X: Don't mount



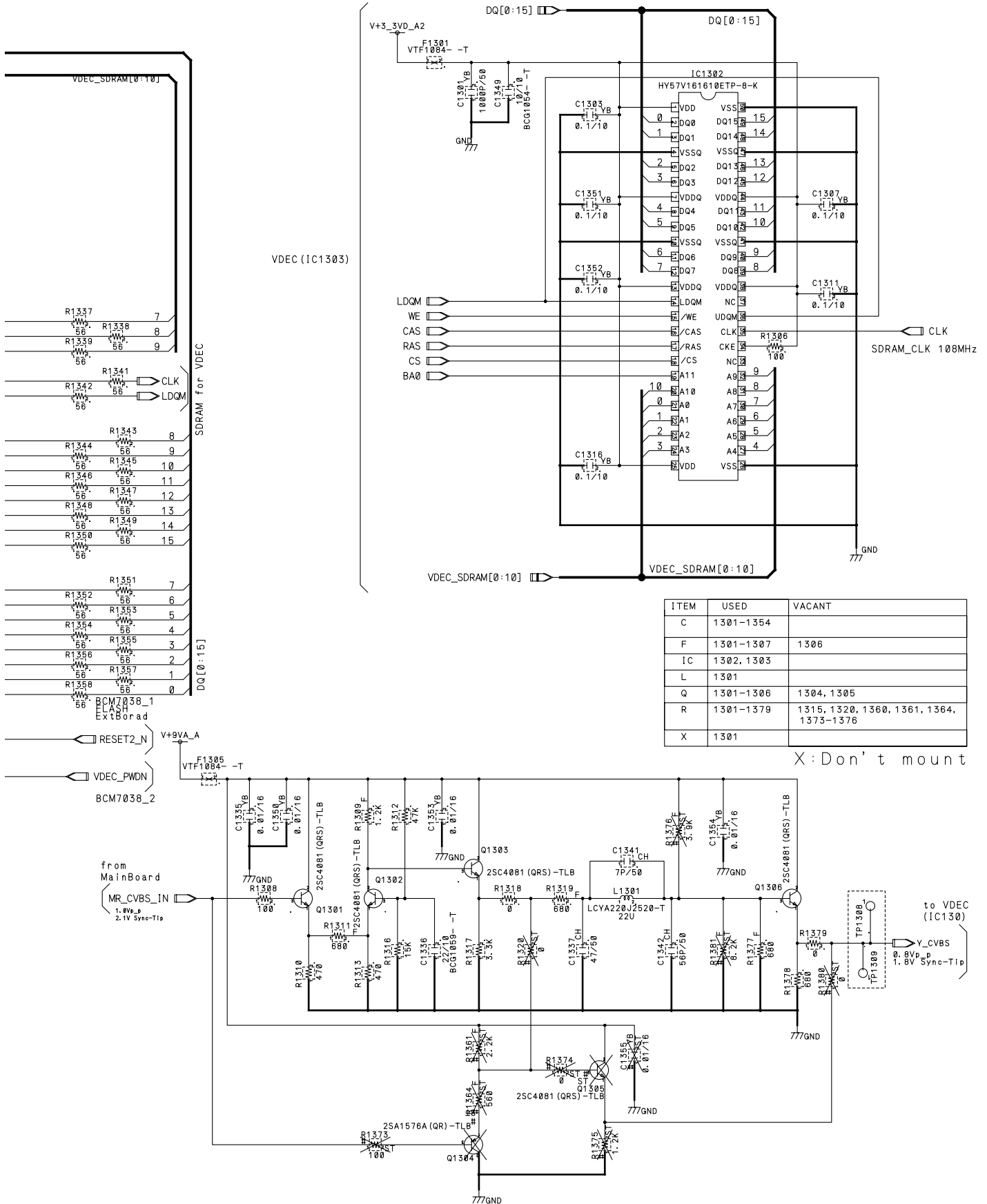
△

SDRAM for VDEC

A



SDRAM for VDEC



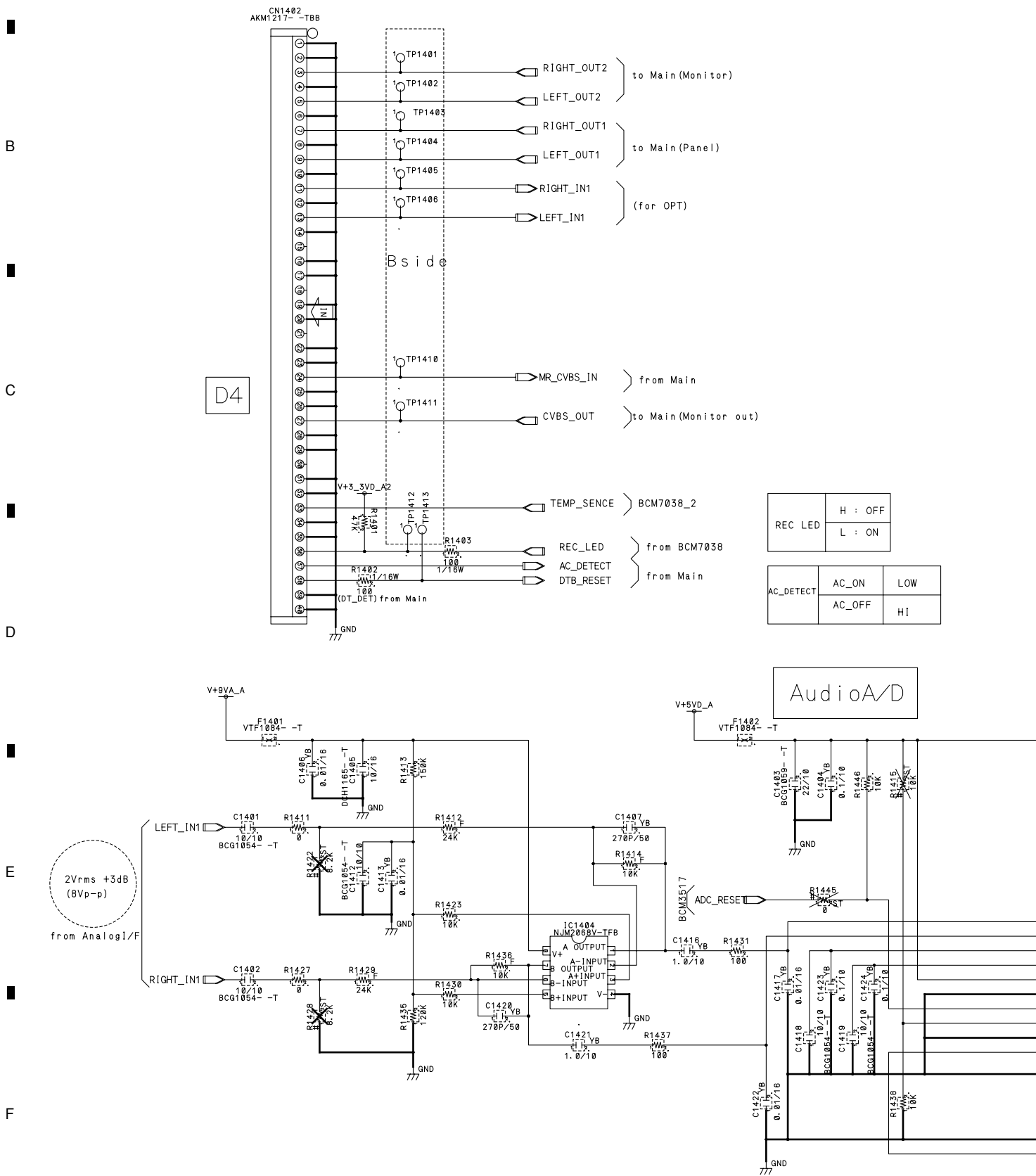
3.6 MR DTB ASSY (5/14)

MR DTB ASSY (5/14)

• A-AD, AV-I/F BLOCK

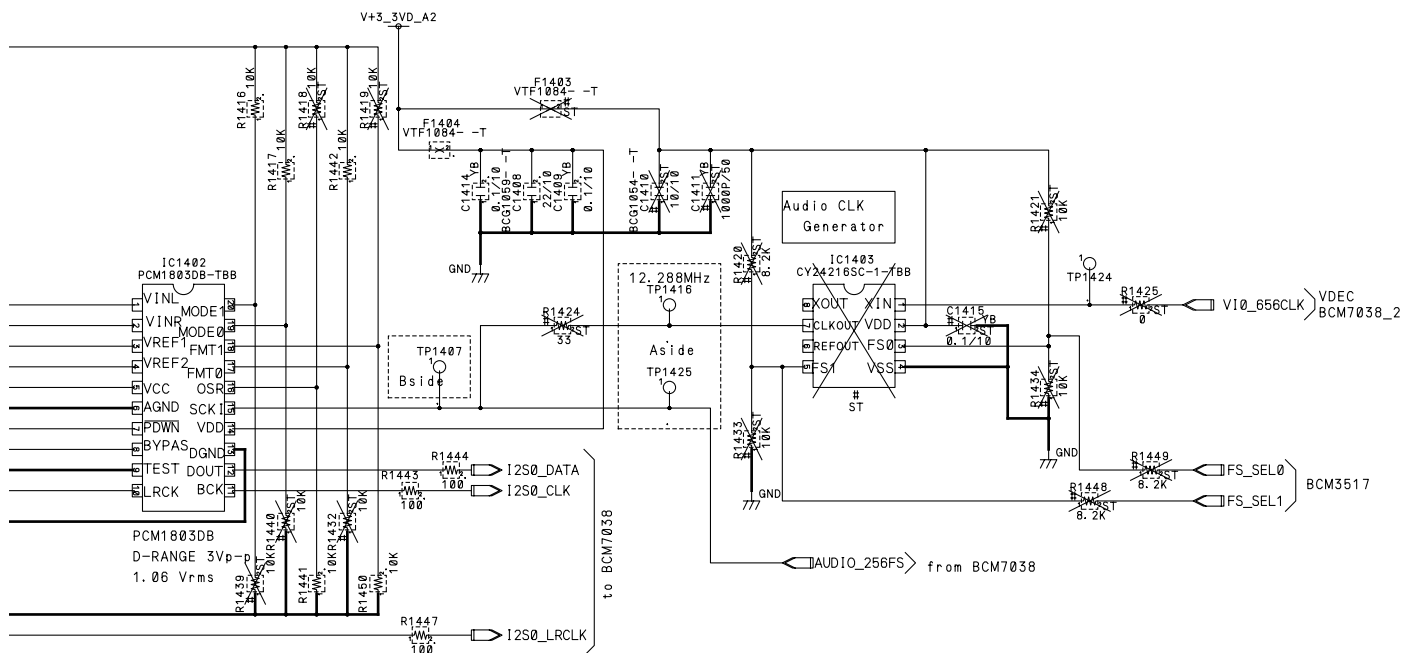
Analog IF <1>

DTB <--> Main Board



ITEM	USED	VACANT
C	1401-1424	1410, 1411, 1415
F	1401-1404	1403
IC	1402, 1404	
L	----	
R	1401-1450	1404-1410, 1415, 1418-1422 1424-1426, 1428, 1432-1434 1439, 1440, 1445, 1448, 1449
CN	1402	

X: Don't mount



3.7 MR DTB ASSY (6/14)

MR DTB ASSY (6/14)

• POD IC BLOCK

A

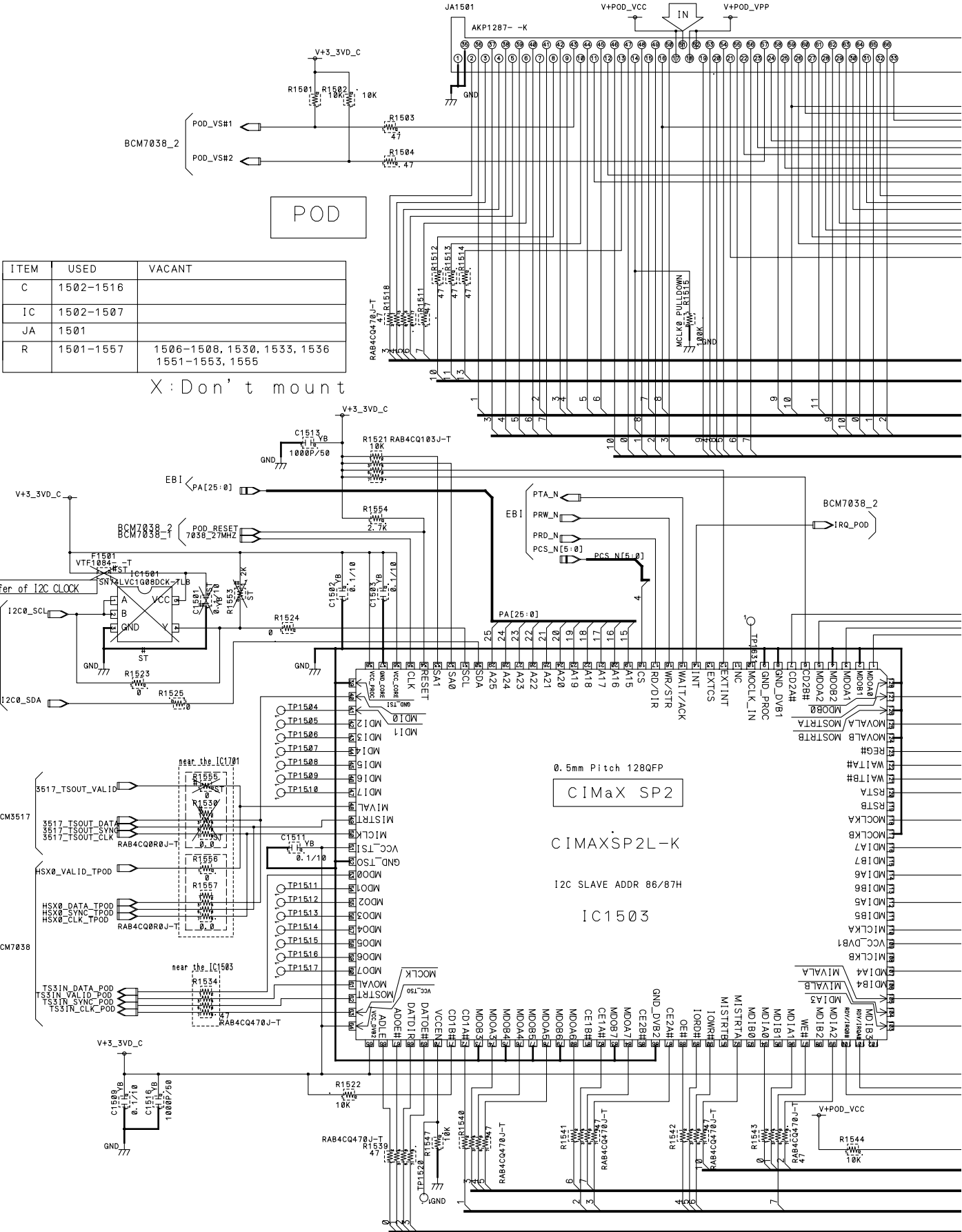
B

C

D

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F



A

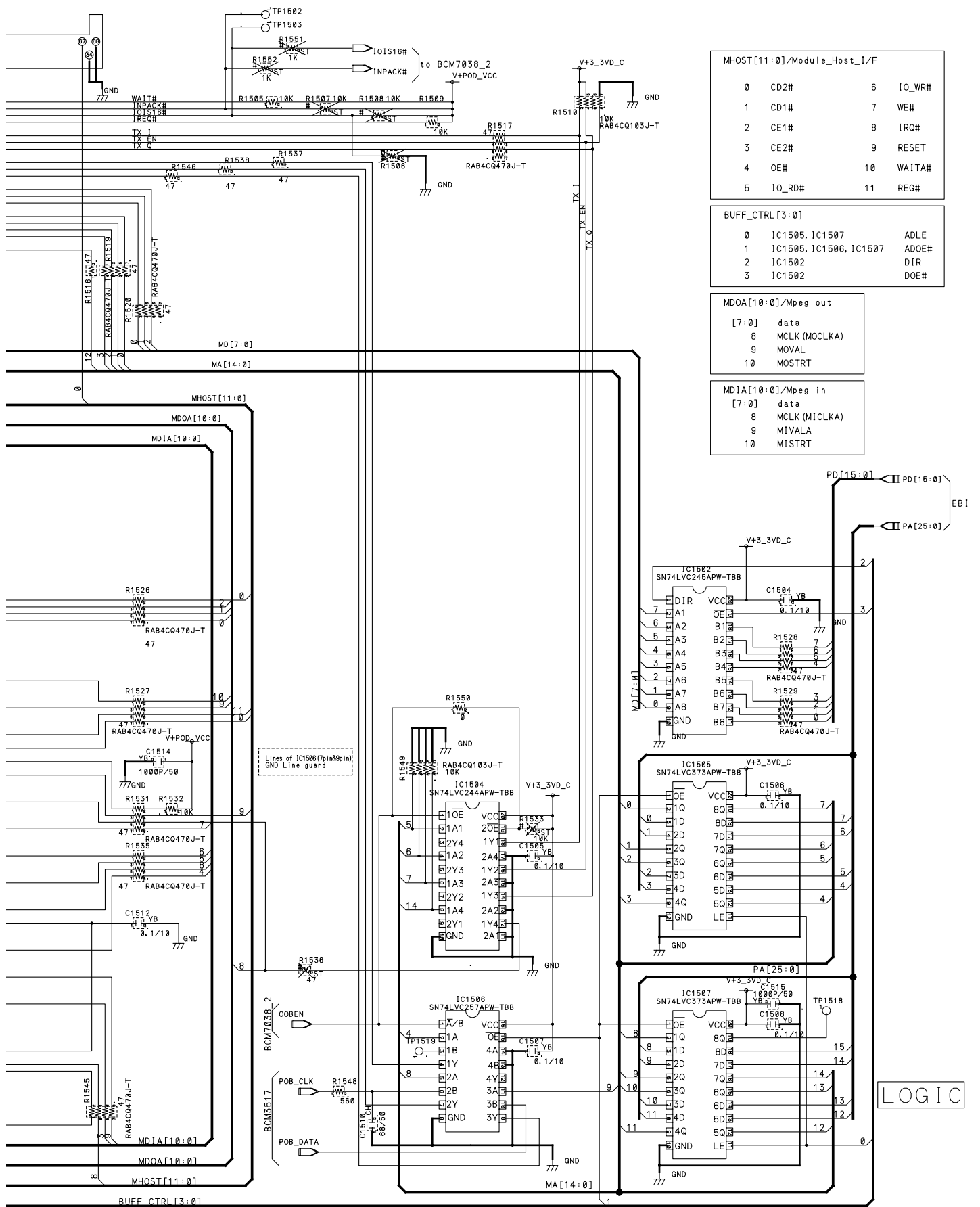
B

C

D

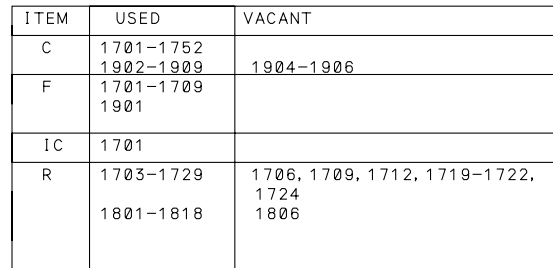
E

F



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F



20



4

A • BACK END BLOCK (2/2)



ITEM	USED	VACANT
C	2001-2012 2201-2230	2002-2006 2209-2214, 2219-2221, 2224
F	2001-2003 2201-2209	
IC	1701	
Q	2201	
R	2002-2006 2201-2251	2211, 2213, 2215, 2217, 2226 2231, 2233, 2235-2244, 2246

X: Don't mount



3.10 MR DTB ASSY (9/14)

MR DTB ASSY (9/14)

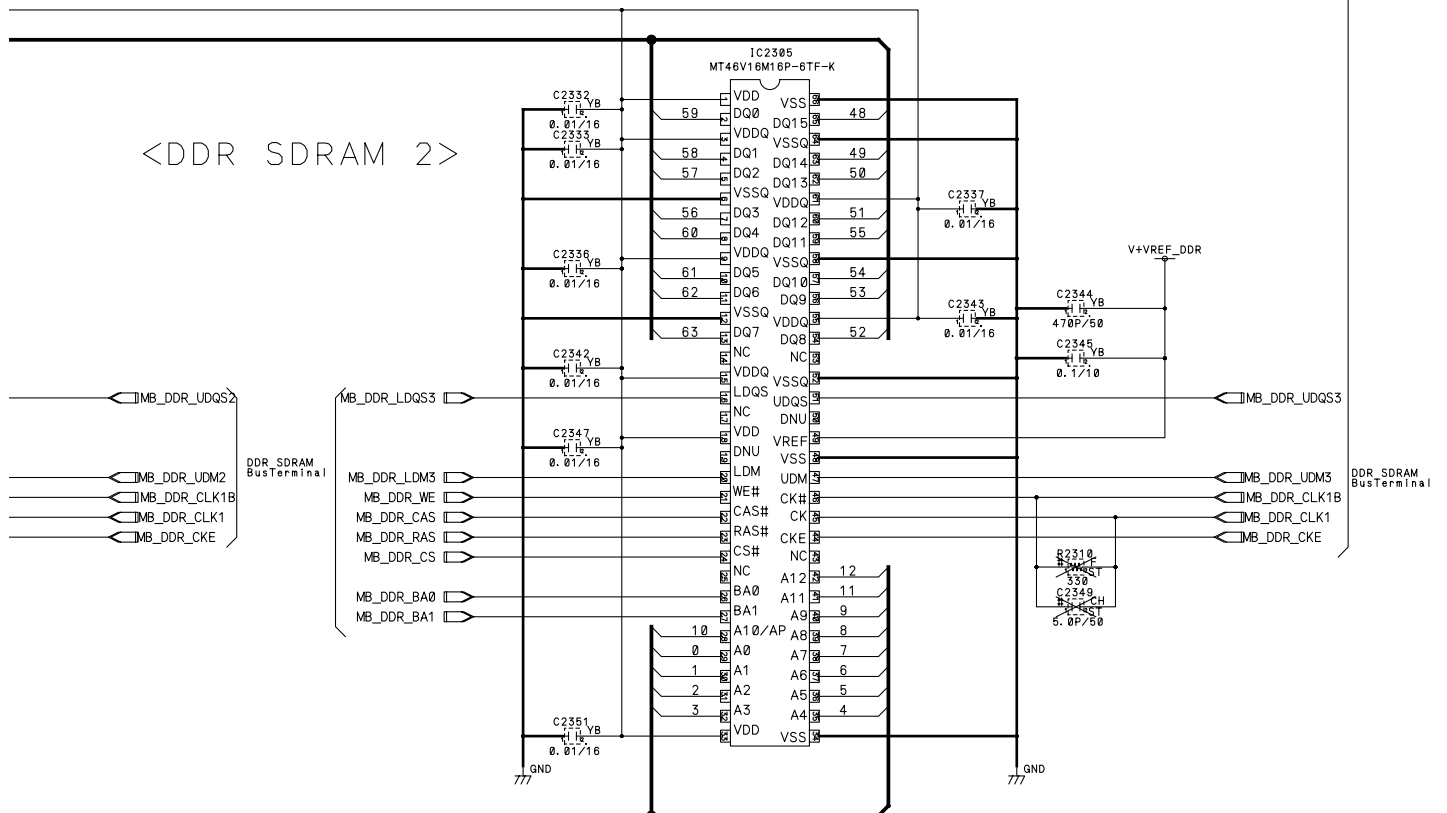
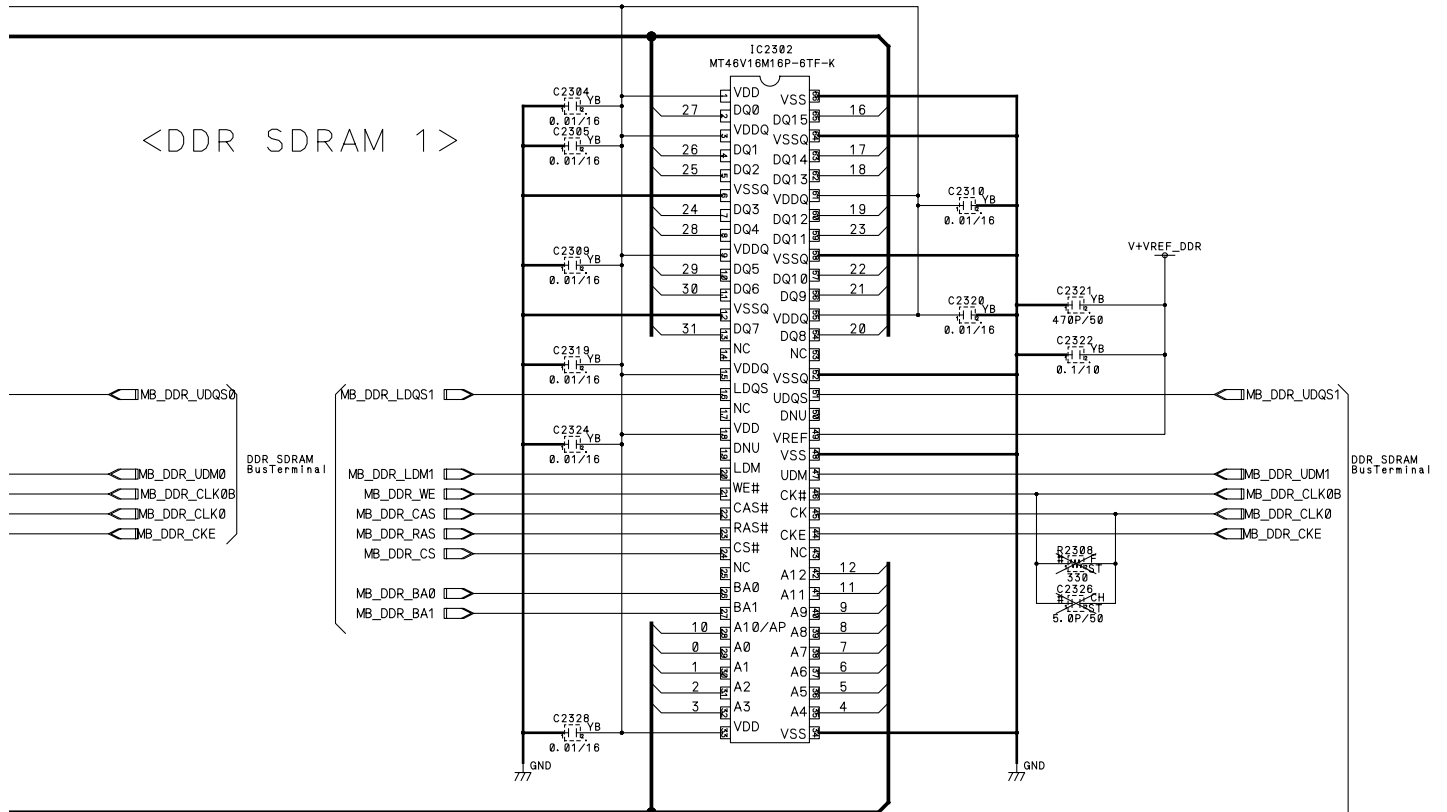
• DDR SDRAM BLOCK

DDR SDRAM
64bit Memory Bus

Termination Reg

ITEM	USED	VACANT
C	2253-2255 2301-2352	2254 2314, 2325, 2326 2348, 2349
F	1002-1008	
IC	2301-2305	
R	2304	

X:Don't mount

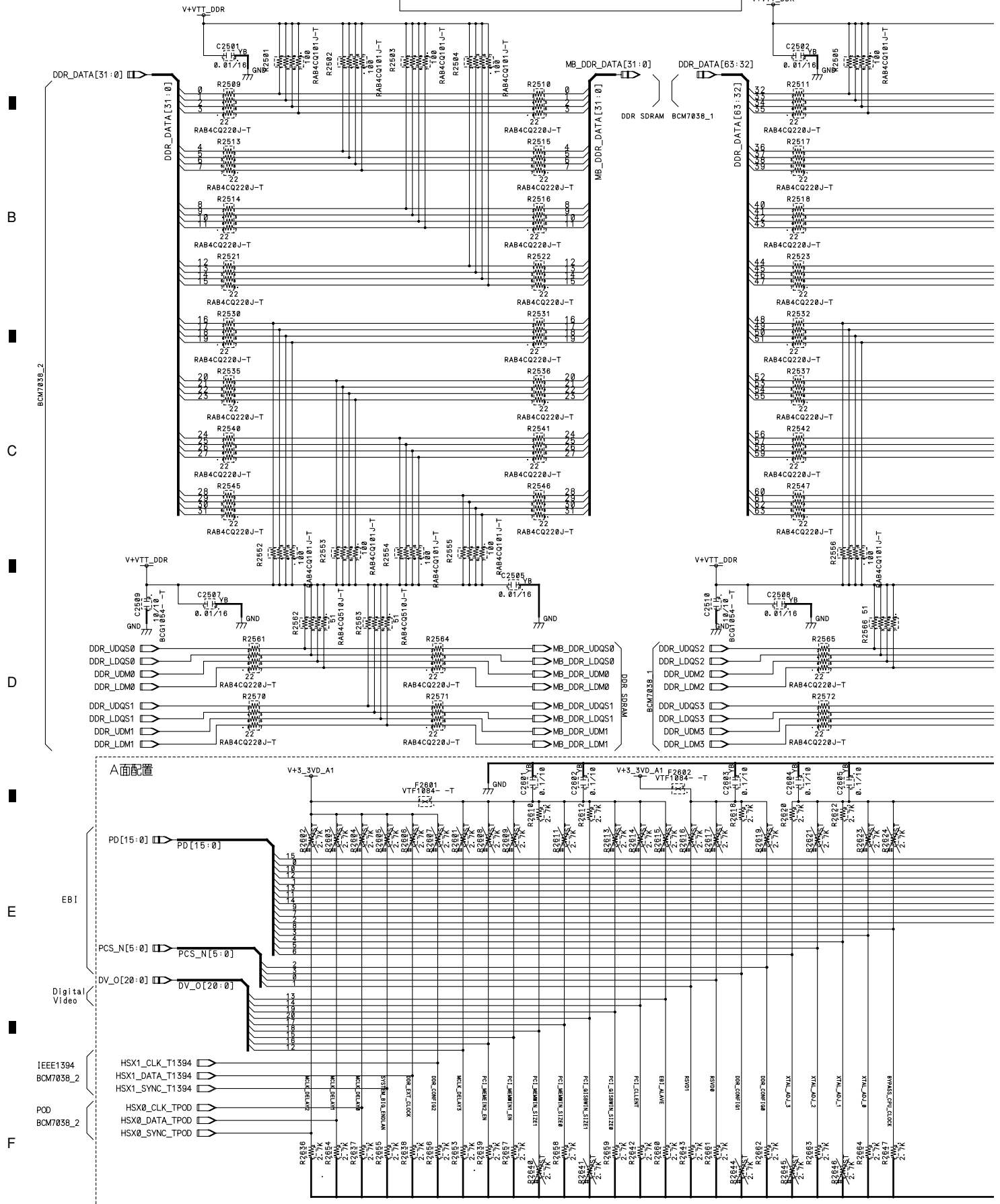


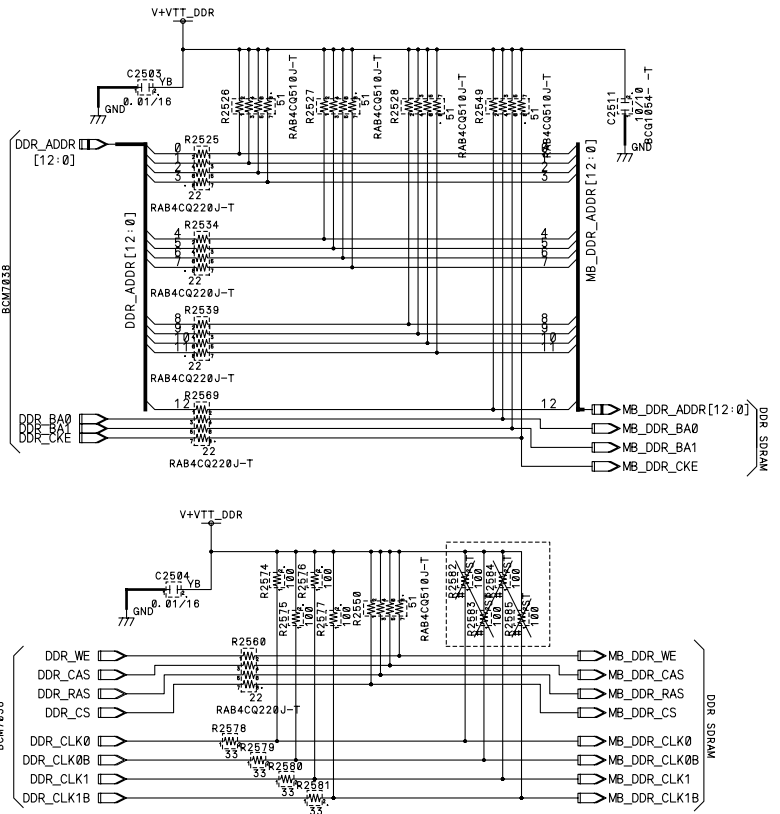
3.11 MR DTB ASSY (10/14)

MR DTB ASSY (10/14)

• BUS TERMINAL BLOCK

Bus Terminal for DDR SDRAM





ITEM	USED	VACANT
C	2501-2511 2601-2611	
F	2601-2603	
R	2501-2581 2610-2670	2529, 2544, 2551 2611, 2613-2617, 2619 2621, 2623, 2624, 2628, 2629 2631, 2634, 2635 2640, 2641, 2644-2646, 2648 2650, 2651, 2665, 2666, 2669

X:Don' t mount

- FLASH, E2P BLOCK

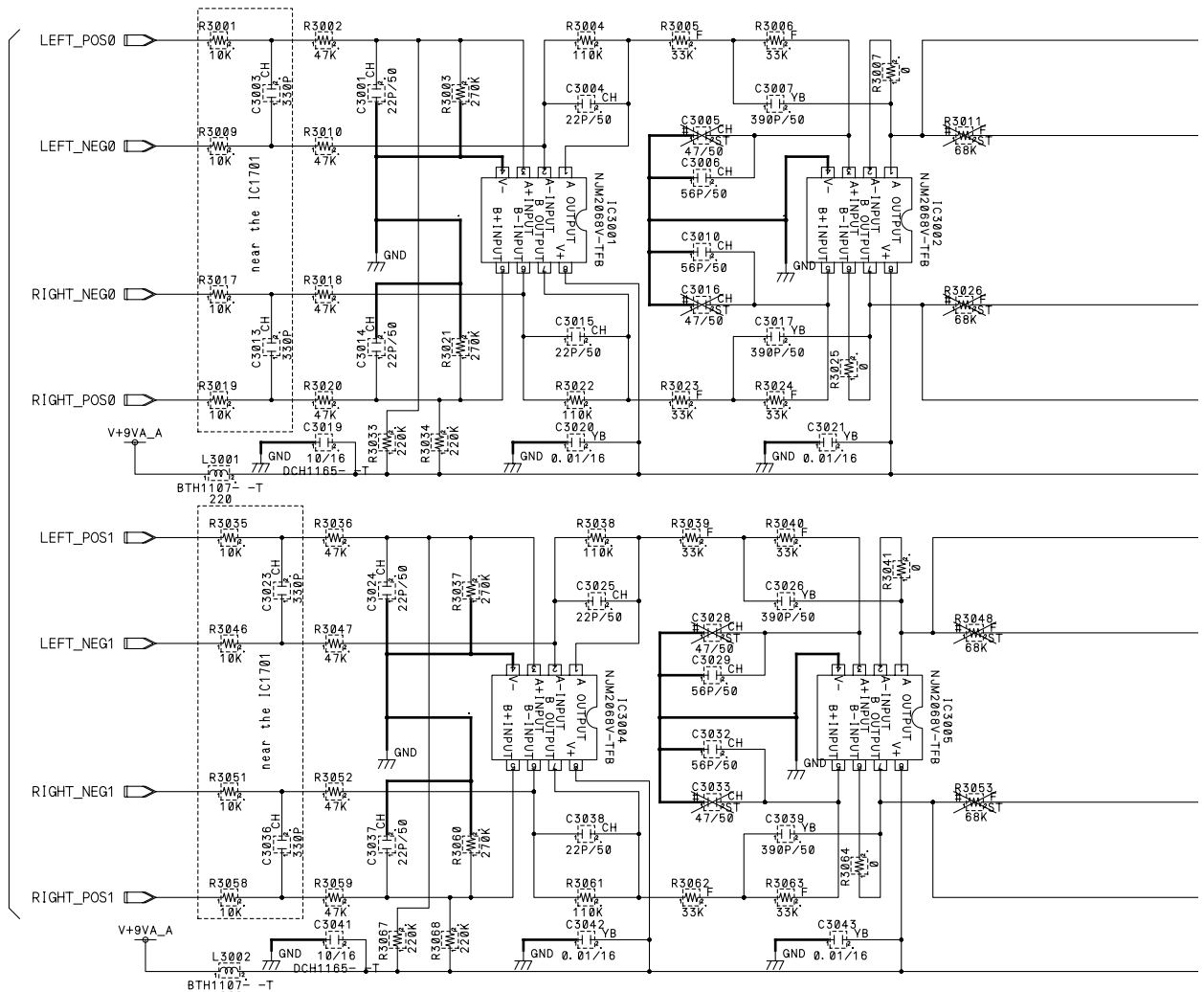
X: Don' t mount

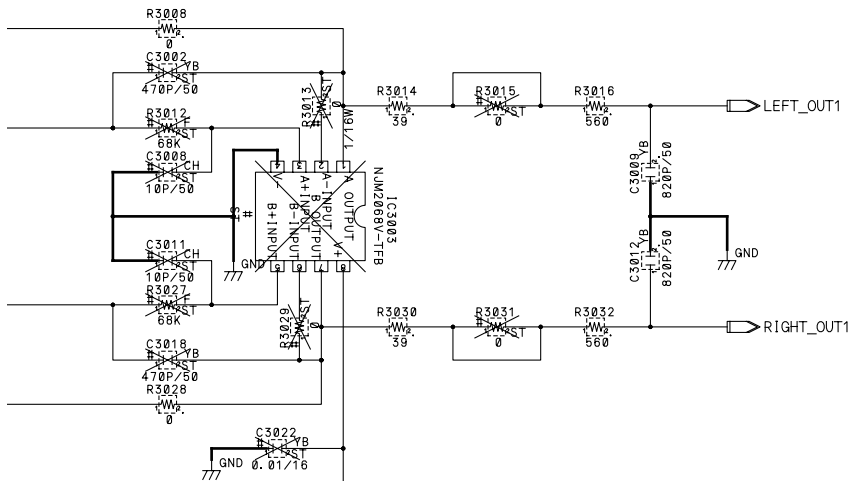
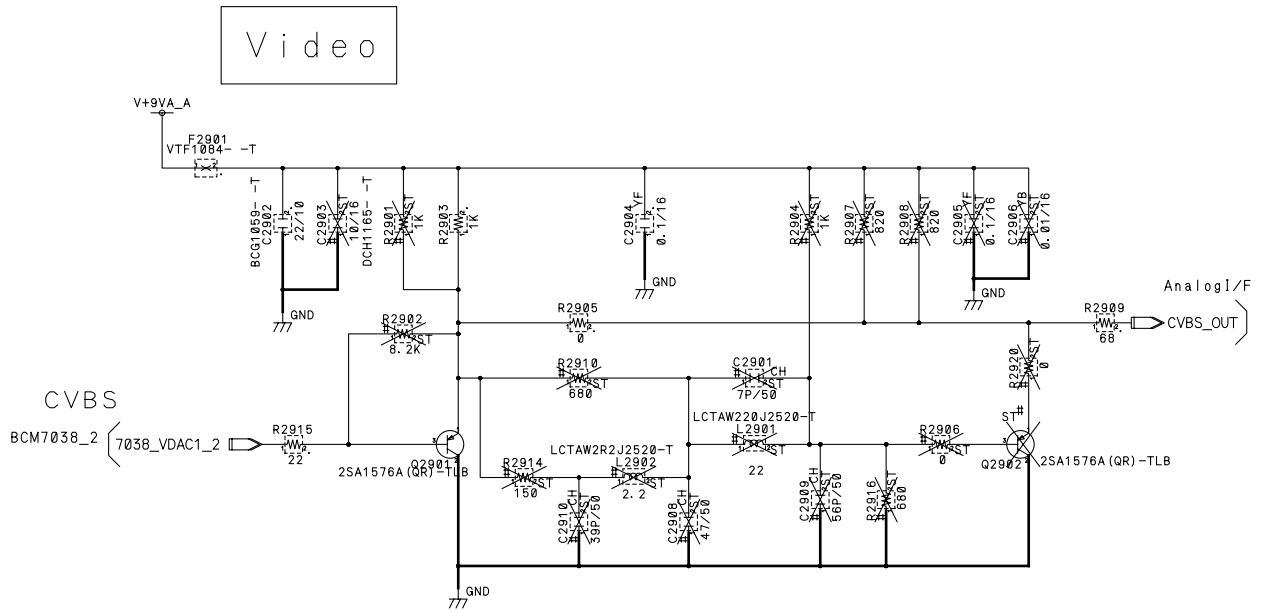




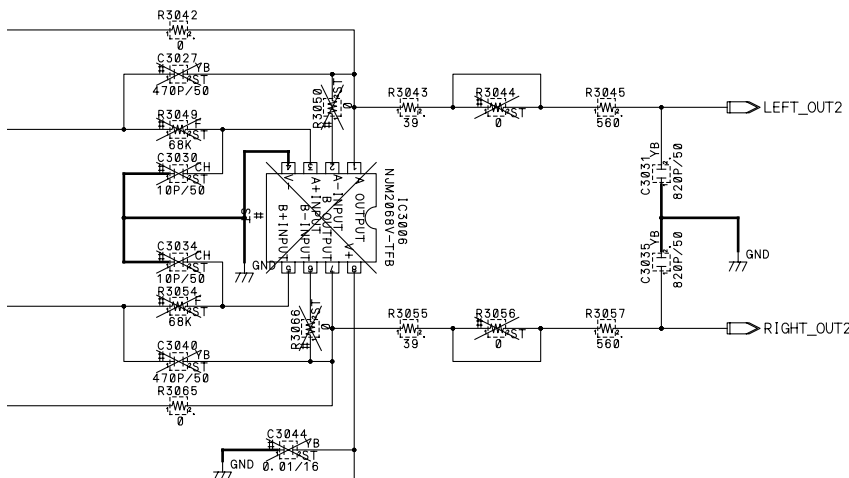
- A/V OUT BLOCK

F





Analog I/F



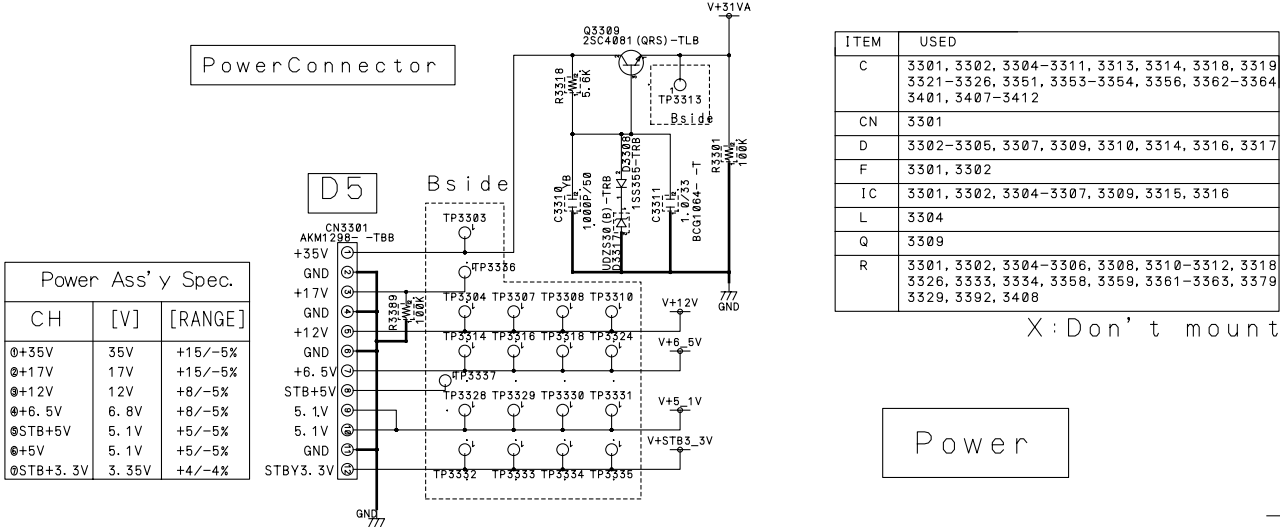
ITEM	USED	VACANT
C	2902-2924 3001-3043	2903, 2905-2923 3002, 3005, 3008, 3011, 3016 3018, 3022, 3027, 3028, 3030 3033, 3034, 3040
F	2901	
IC	3001-3005	3003
JA	2901	
L	3001, 3002	
Q	2901	
R	2903-2915 2955 3001-3068	2904, 2906-2908, 2910-2914 3011-3013, 3015, 3026, 3027 3029, 3031, 3044, 3048-3050 3053, 3054, 3056, 3066

X: Don't mount

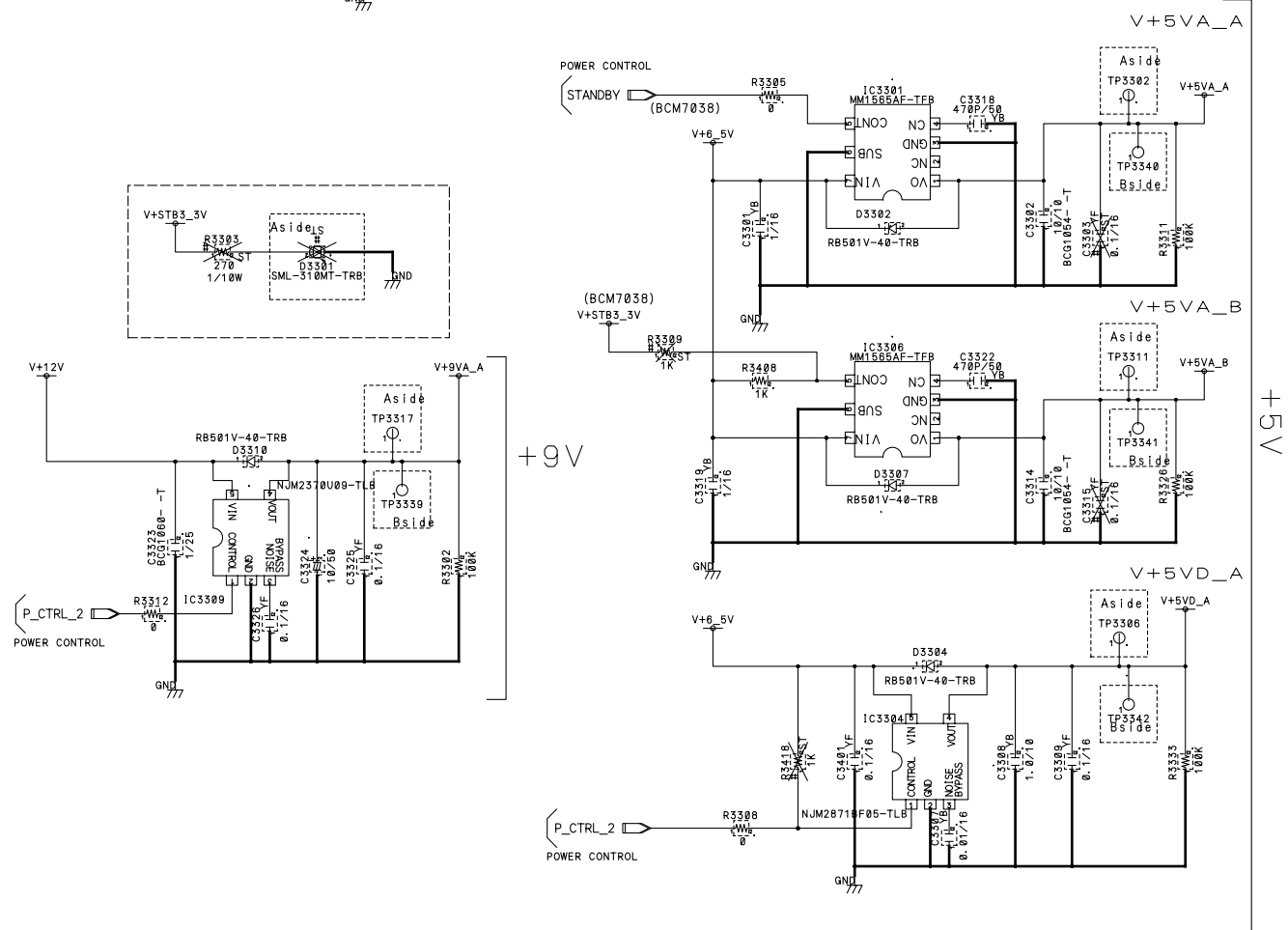
MR DTB ASSY (13/14)

• POWER BLOCK (1/2)

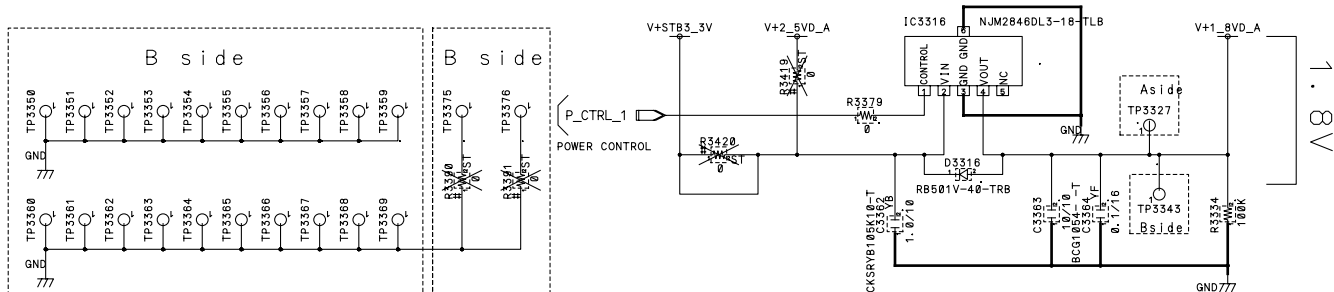
A



C



E



F



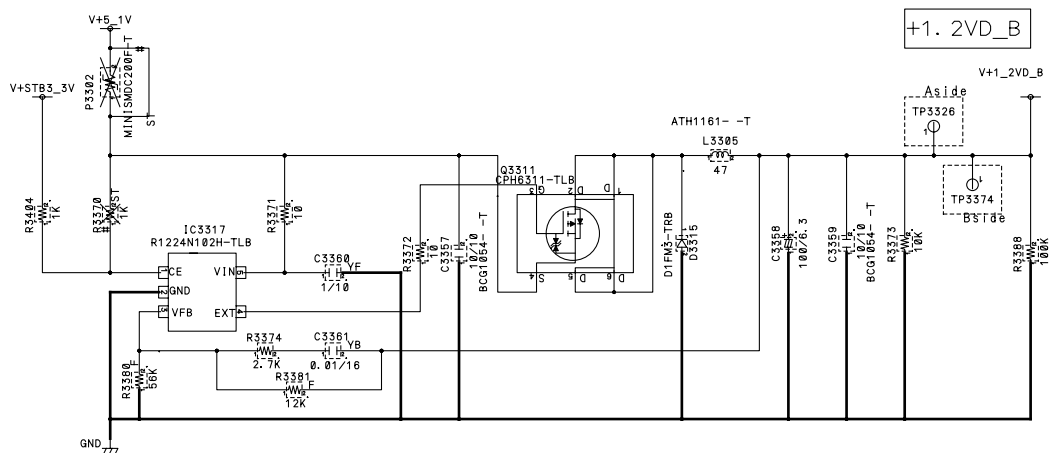
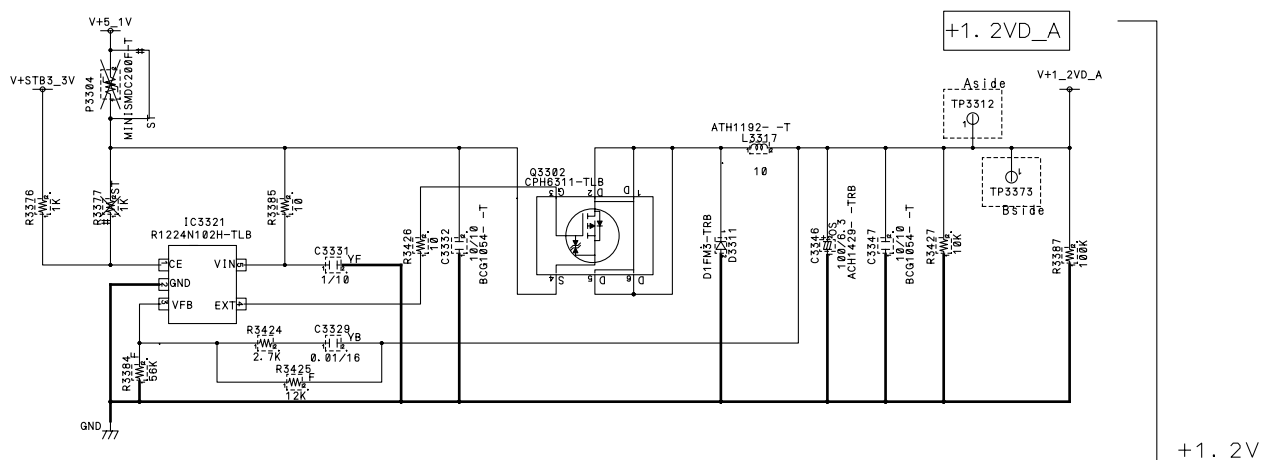
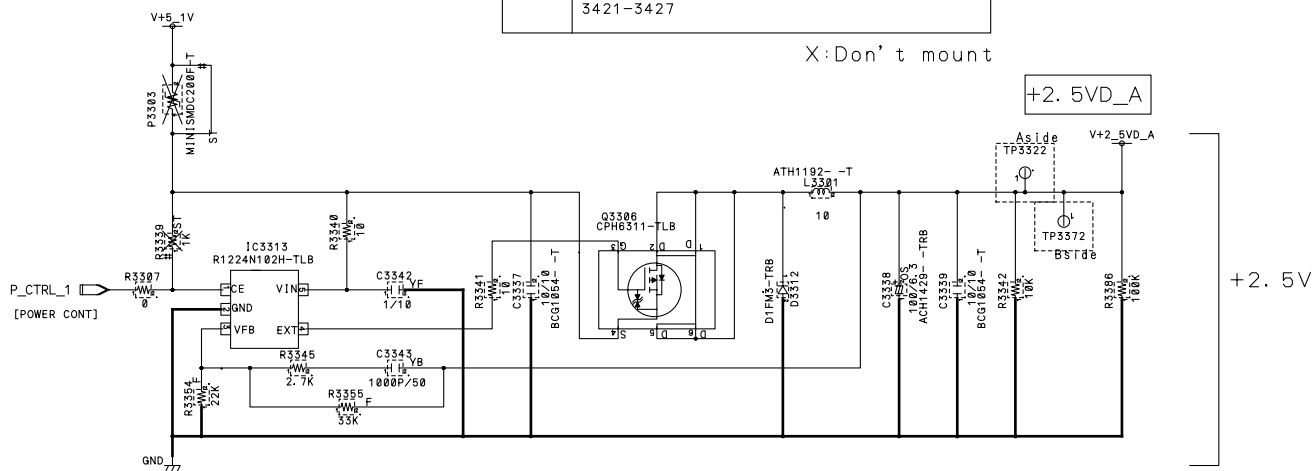
- POWER BLOCK (2/2)

A • POWER BLOCK (2/2)



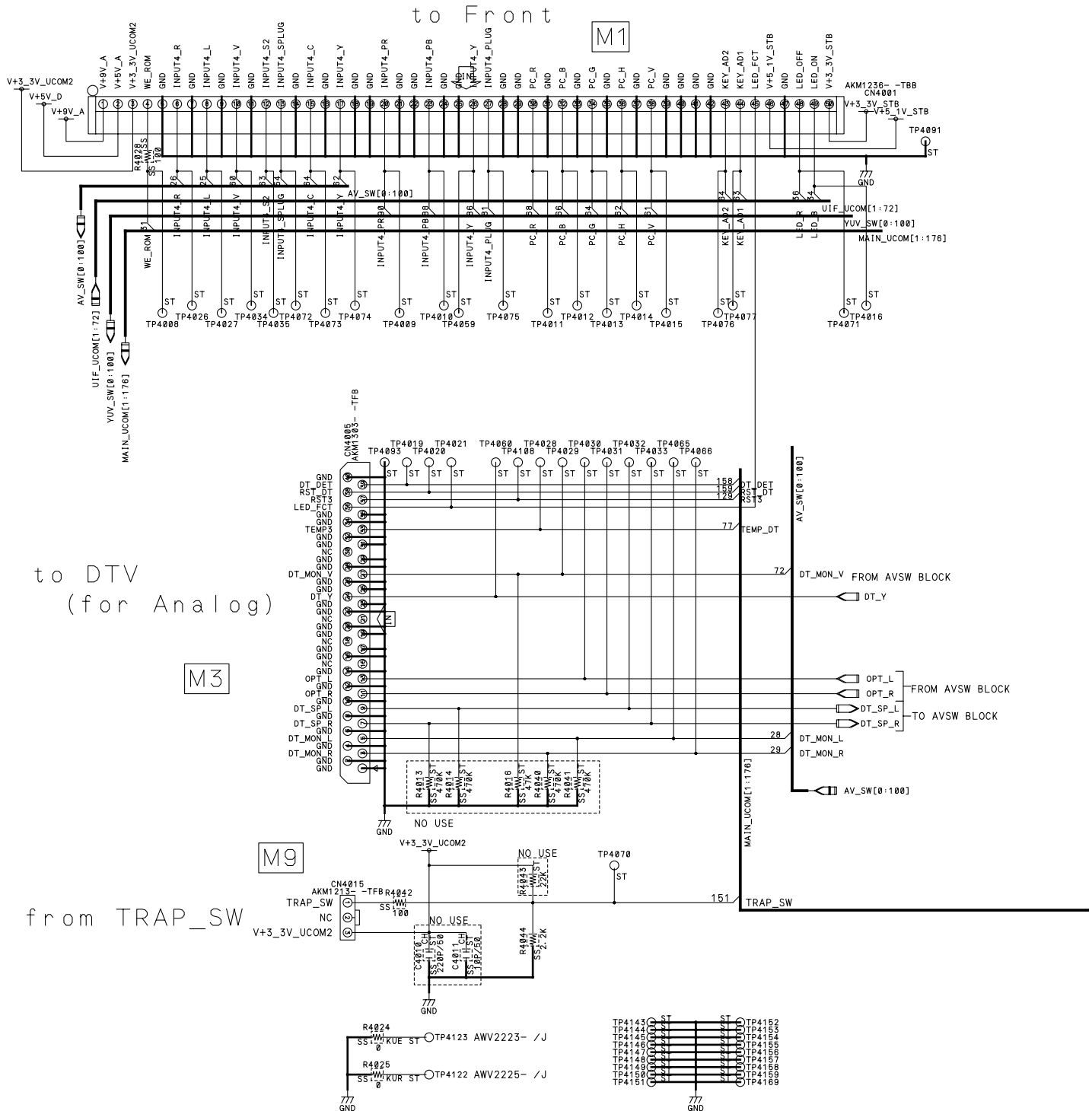
ITEM	USED
C	3316, 3317, 3329-3347, 3357-3361, 3367, 3341 3321-3326, 3351, 3353-3354, 3356, 3362-3364 3401, 3407-3412
D	3311, 3312, 3315, 3318
IC	3310, 3312-3314, 3317, 3318, 3321
L	3301, 3302, 3305, 3307, 3308, 3317
Q	3301-3308, 3310, 3311
R	3307, 3314-3316, 3321-3325, 3327-3332 3336-3338, 3340-3346, 3348-3356, 3364, 3365 3368, 3371-3376, 3378, 3380, 3388, 3404, 3421-3427

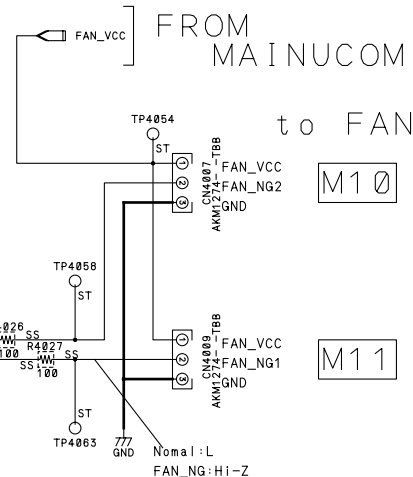
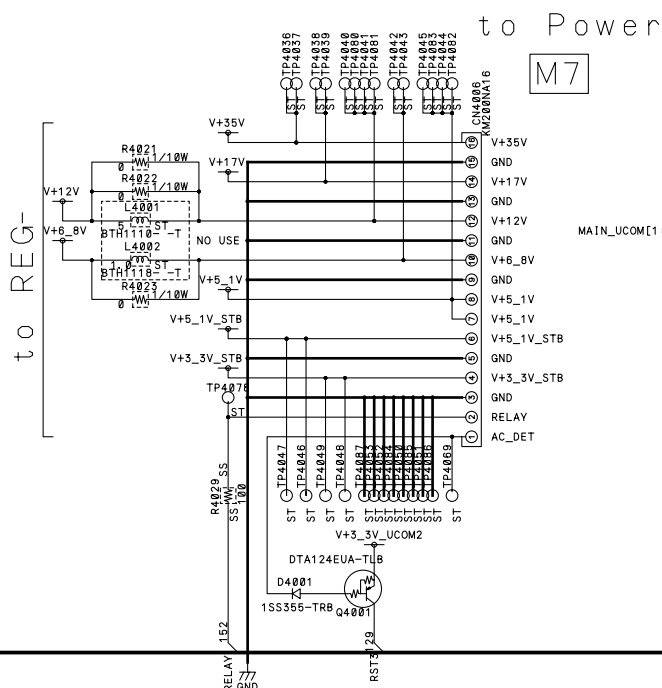
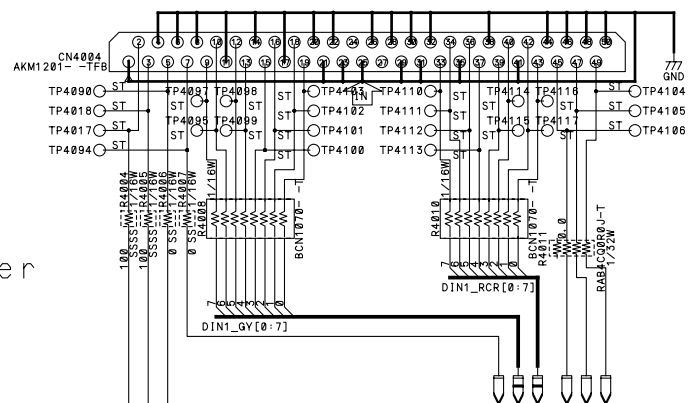
X: Don' t mount



- BOARD IF BLOCK

ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	4010-4011		
CN	4001-4015	4008, 4010-4014,	4002-4003, 4008, 4010-4014,
D	4001-4001		
L	4001-4002		
Q	4001-4001		
R	4001-4044	4009, 4012, 4015, 4017-4020, 4025, 4030-4039,	4009, 4012, 4015, 4019-4020, 4024, 4030-4039,





- REG BLOCK

For CCDUCOM

REG 1.5V

1 DC 1.5V±2%

REG 3.3V

✓ DC 3.3V ± 2%

REG 1.8V

DC1. 8V±2. 5%

REG 1.8V

DC1. 8V±2%

Active 47 from IFUCOM
UIF_UCOM[1:72] UIF_UCOM[1:72]

DC1. 2V±2%

DC3. $3V \pm 2.58\%$

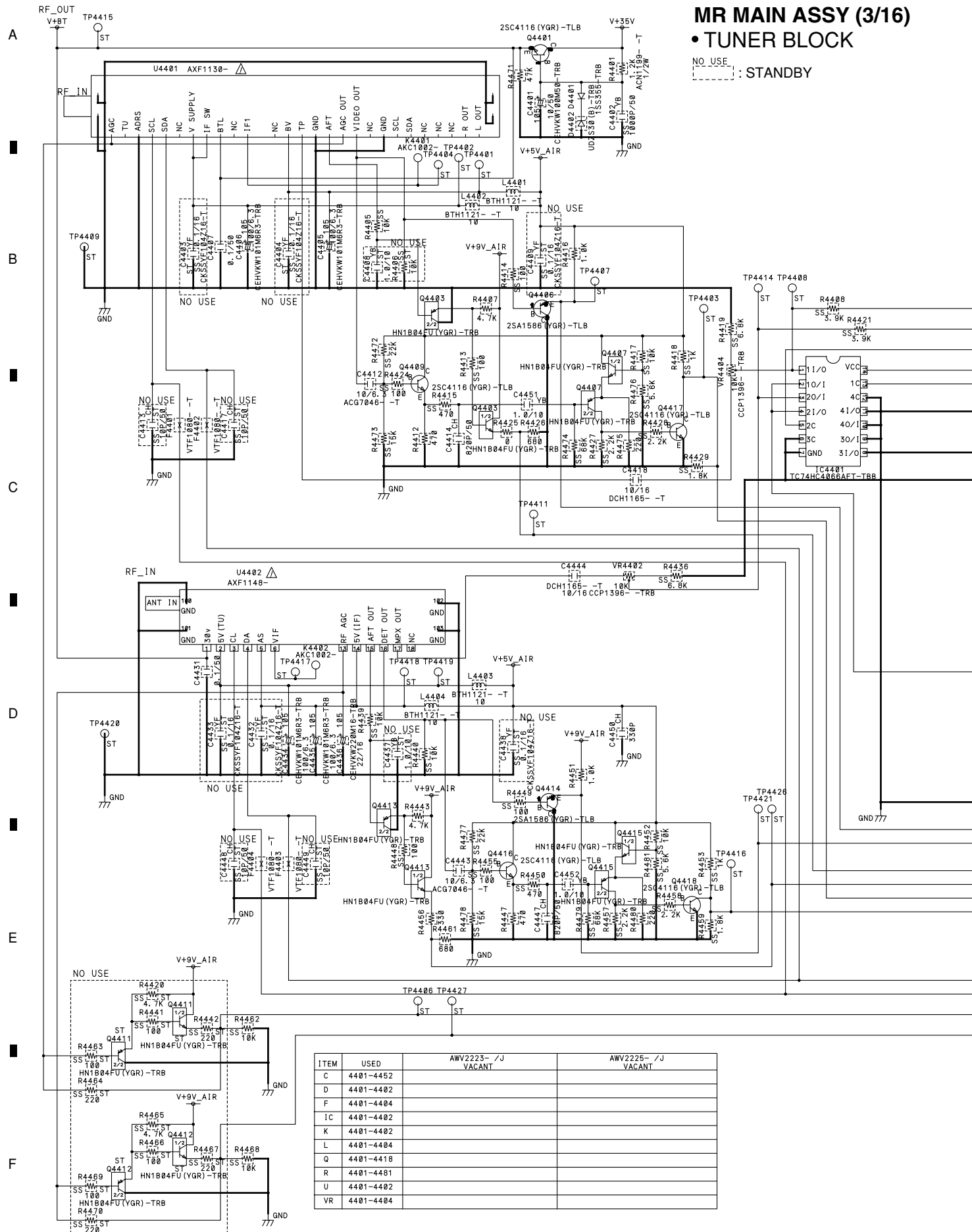
DC 1.8V \pm 3%

3.18 MR MAIN ASSY (3/16)

MR MAIN ASSY (3/16)

• TUNER BLOCK

NO USE : STANDBY



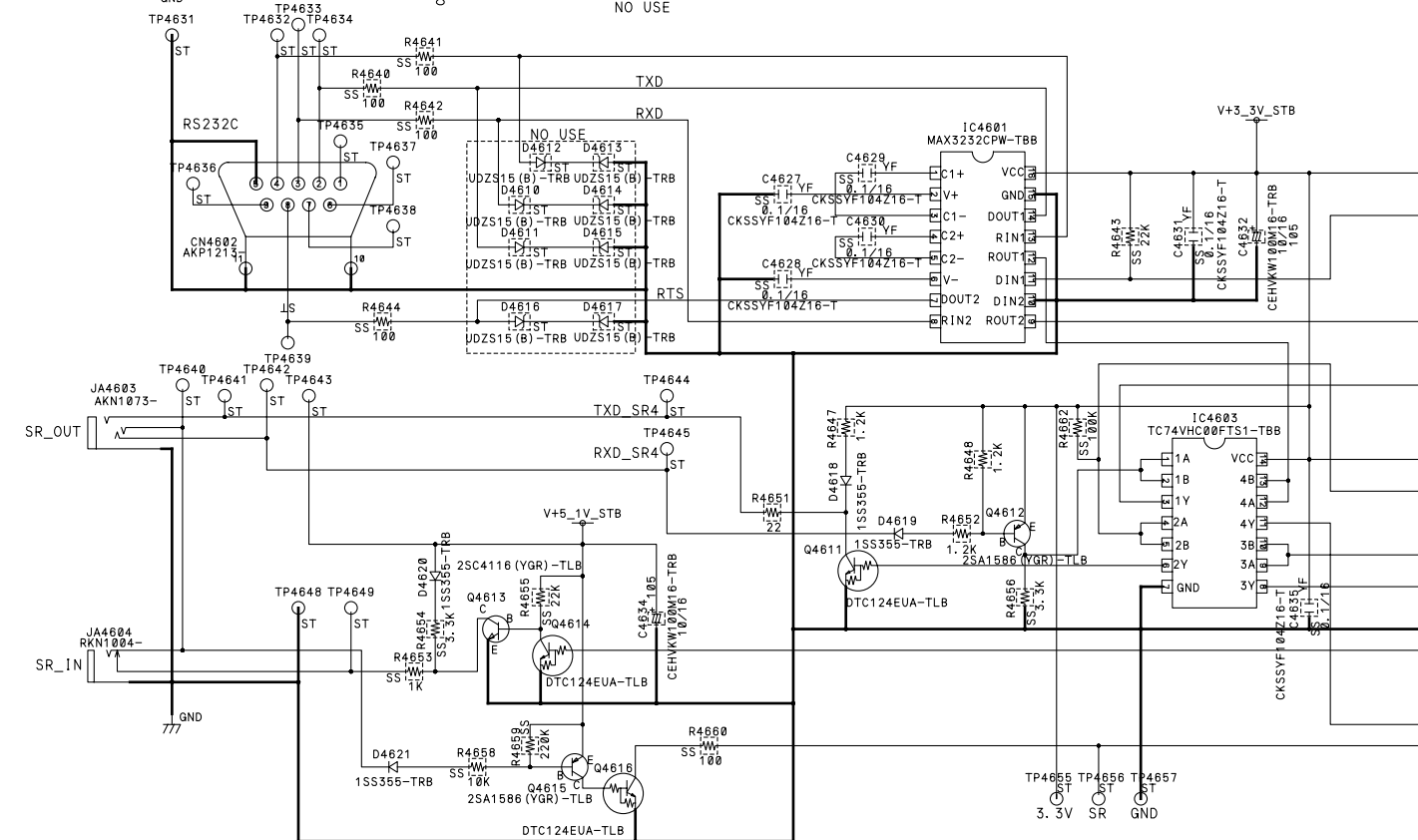
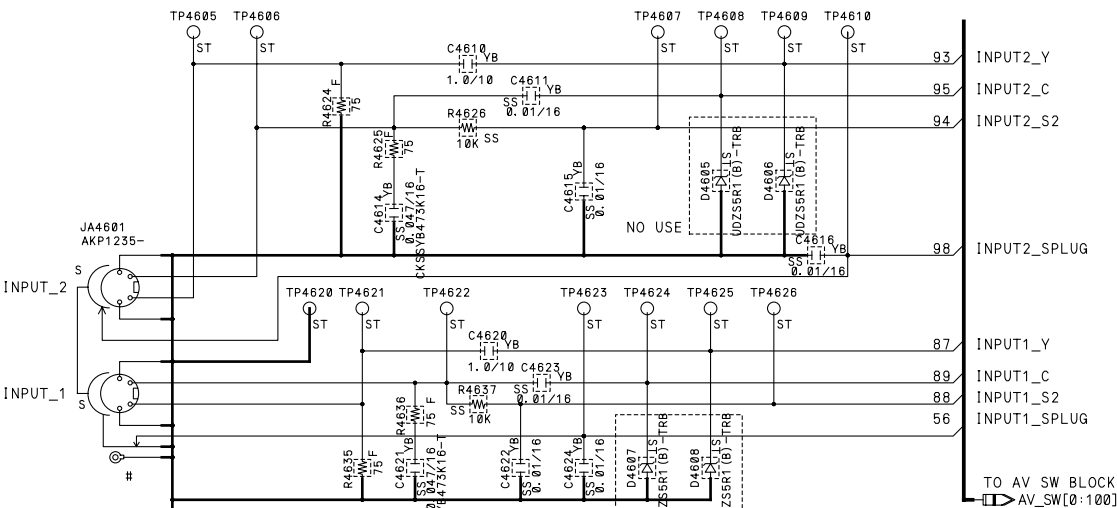


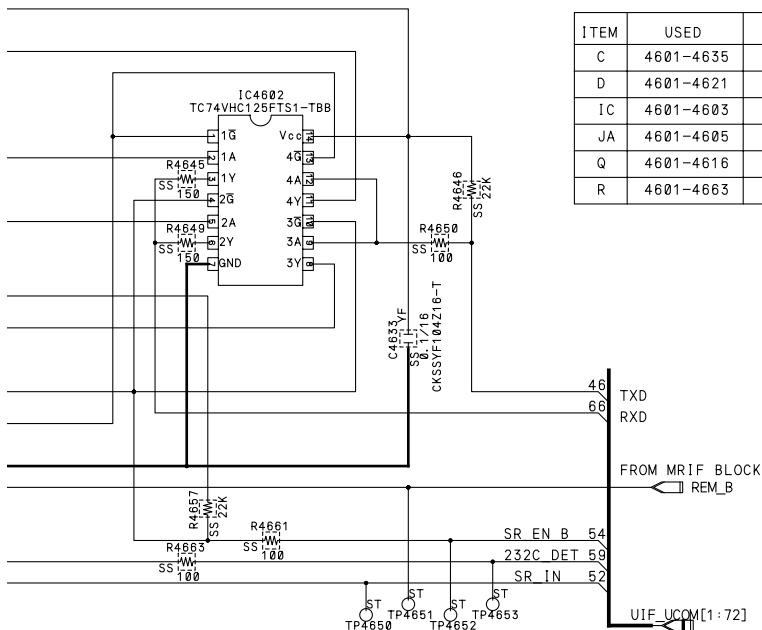
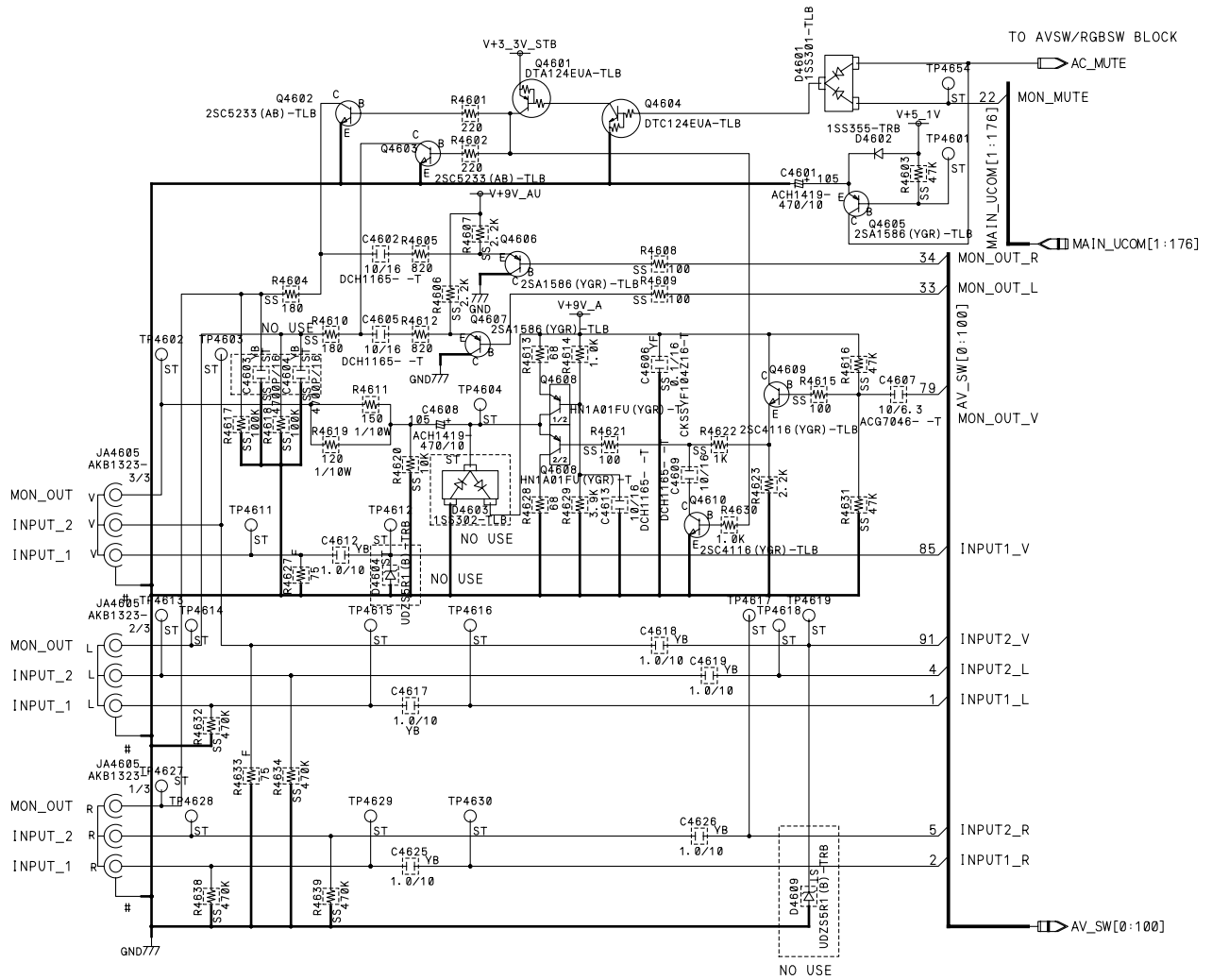
3.19 MR MAIN ASSY (4/16)

MR MAIN ASSY (4/16)

• AV IO BLOCK

NO USE
STANDBY





ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	4601-4635		
D	4601-4621		
IC	4601-4603		
JA	4601-4605		
Q	4601-4616		
R	4601-4663		

△

A

```
NO USE
-----
: STANDBY
```

B

C

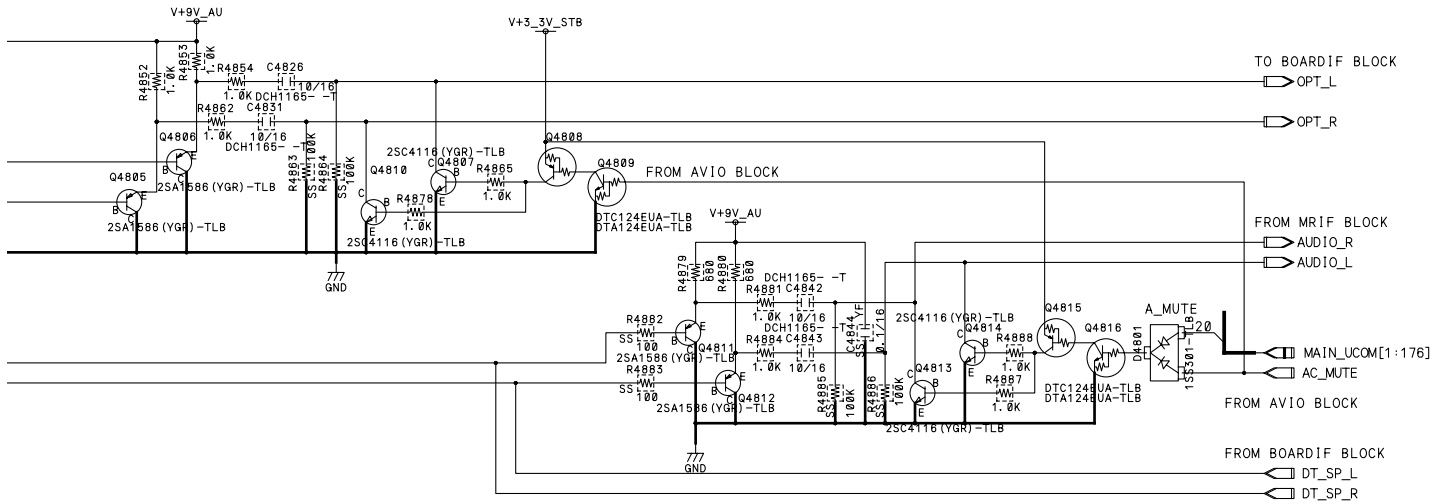
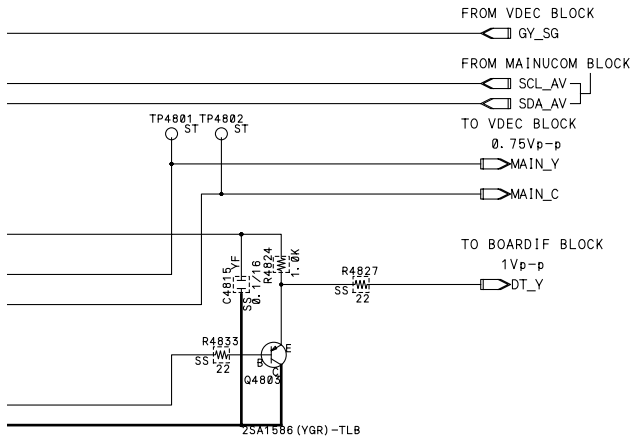
D

E

F



ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	4801-4855	4851,	4851,
D	4801-4801		
IC	4801-4803	4802,	4802,
Q	4801-4816	4804,	4804,
R	4801-4908	4807, 4825-4826, 4828, 4834-4835, 4838, 4843, 4845, 4850, 4889-4892, 4899-4904,	4807, 4825-4826, 4828, 4834-4835, 4838, 4843, 4845, 4850, 4889-4892, 4899-4904,



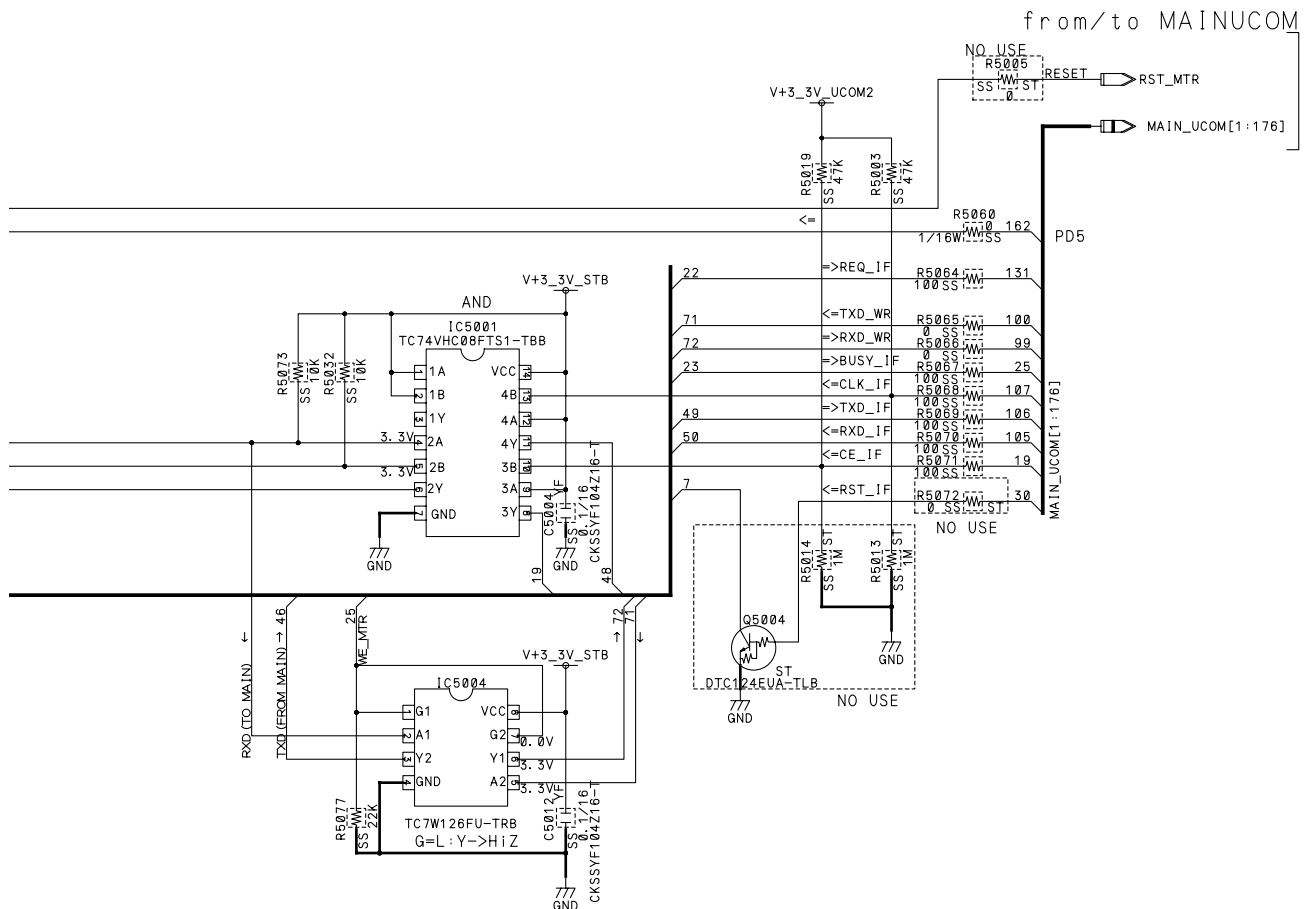
4

A • IF UCOM BLOCK

A



ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	5001-5012	5006,	5006,
IC	5001-5004		
Q	5001-5004	5002-5003,	5002-5003,
R	5001-5077	5008, 5018, 5024, 5027-5029, 5031, 5033, 5038-5042, 5045, 5048-5049, 5054, 5056-5059, 5061, 5074-5076,	5008, 5018, 5024, 5027-5029, 5031, 5033, 5038-5042, 5045, 5048-5049, 5054, 5056-5059, 5061, 5074-5076,
X	5001-5002		



- MAIN UCOM BLOCK

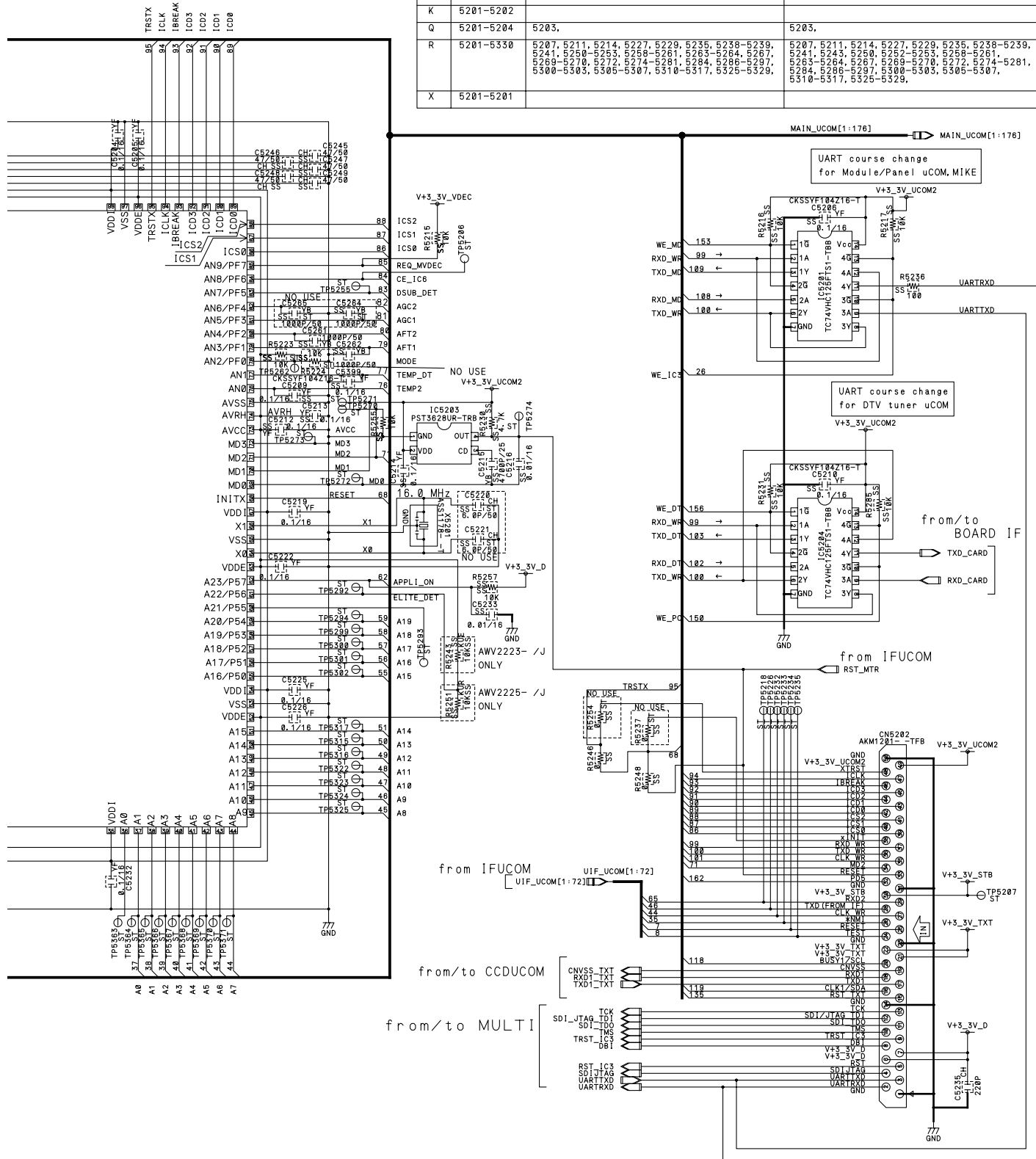
MAIN UCOM

IC5206
MB91305PMC-G-BND-K

to BOARDIE

PDP-R06U

ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	5201-5399	5237, 5239, 5250-5251, 5266-5275, 5277-5398,	5237, 5239, 5250-5251, 5266-5275, 5277-5398,
CN	5202-5202		
D	5201-5203	5202,	5202,
IC	5201-5213	5205, 5208,	5205, 5208,
K	5201-5202		
Q	5201-5204	5203,	5203,
R	5201-5330	5207, 5211, 5214, 5227, 5229, 5235, 5238-5239, 5241, 5250-5251, 5253, 5255, 5258-5261, 5263-5264, 5267, 5269-5270, 5272, 5274-5281, 5284, 5286-5297, 5300-5303, 5305-5307, 5310-5317, 5325-5329,	5207, 5211, 5214, 5227, 5229, 5235, 5238-5239, 5241, 5243, 5250-5251, 5253, 5255, 5258-5261, 5263-5264, 5267, 5269-5270, 5272, 5274-5281, 5284, 5286-5297, 5300-5303, 5305-5307, 5310-5317, 5325-5329,
X	5201-5201		

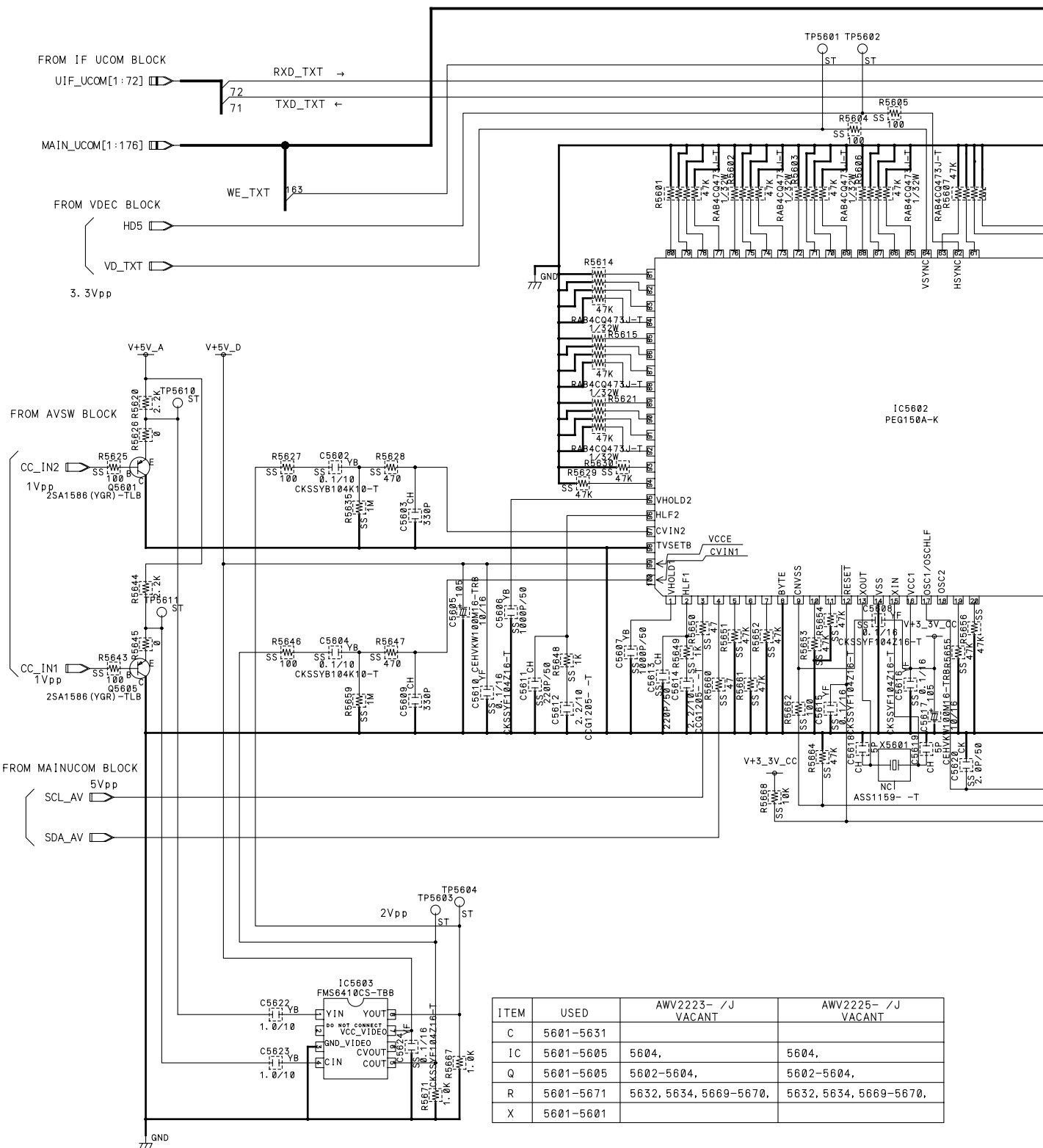


3.23 MR MAIN ASSY (8/16)

MR MAIN ASSY (8/16)

• CCD UCOM BLOCK

NO USE
STANDBY

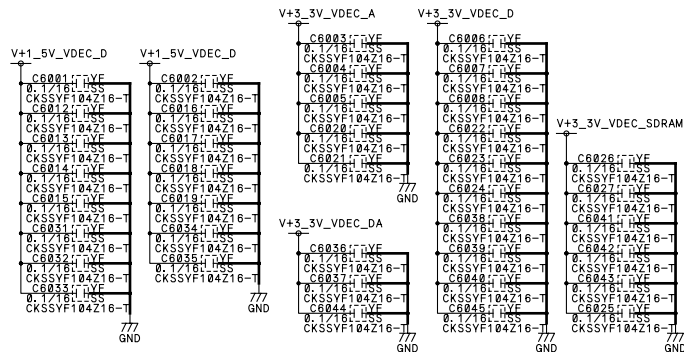


ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	5601-5631		
IC	5601-5605	5604,	5604,
Q	5601-5605	5602-5604,	5602-5604,
R	5601-5671	5632, 5634, 5669-5670,	5632, 5634, 5669-5670,
X	5601-5601		



- VDEC BLOCK

NO USE
: STANDBY



MAIN VDEC

IC6003
UPD64015GM-UEU-K

A

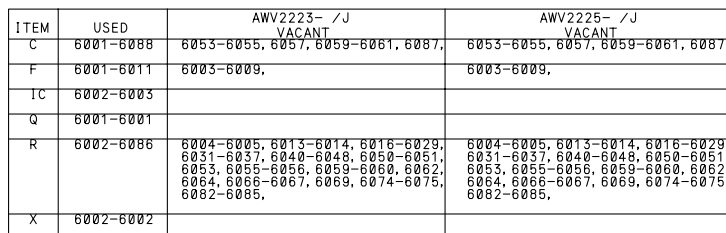
B

C

D

E

F

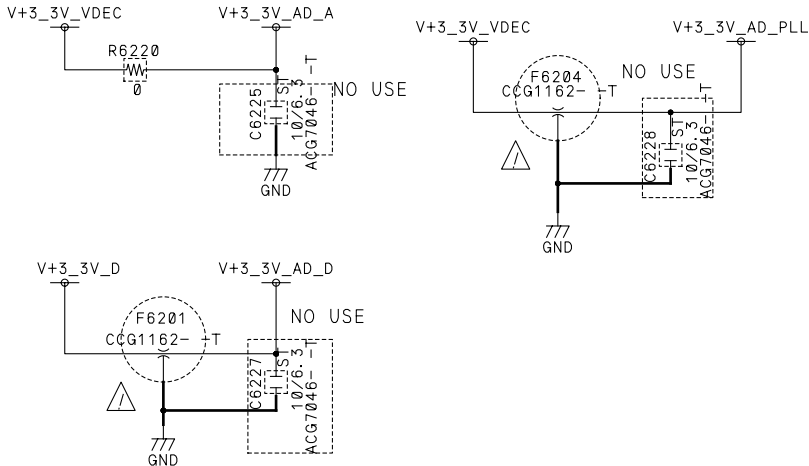
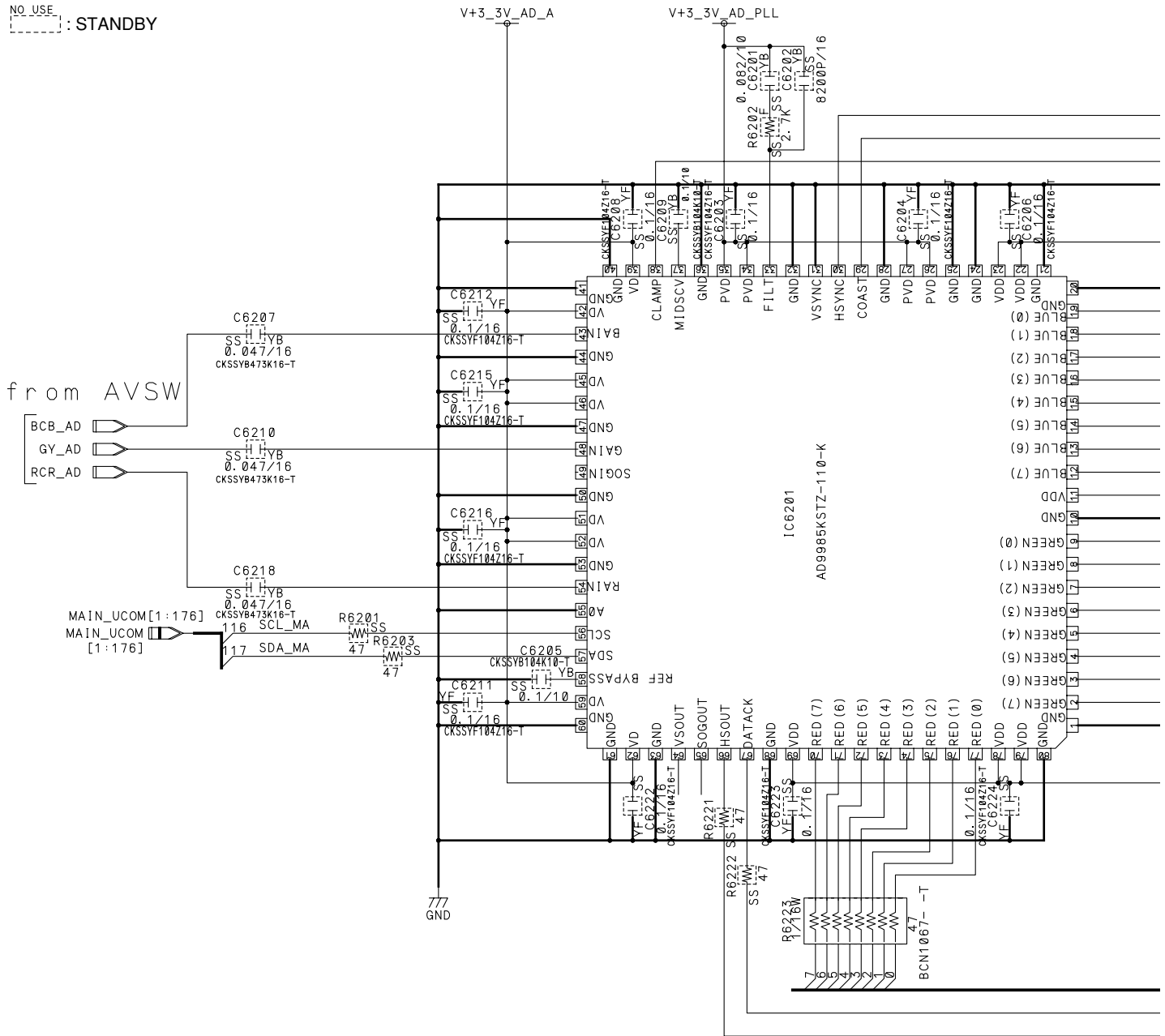


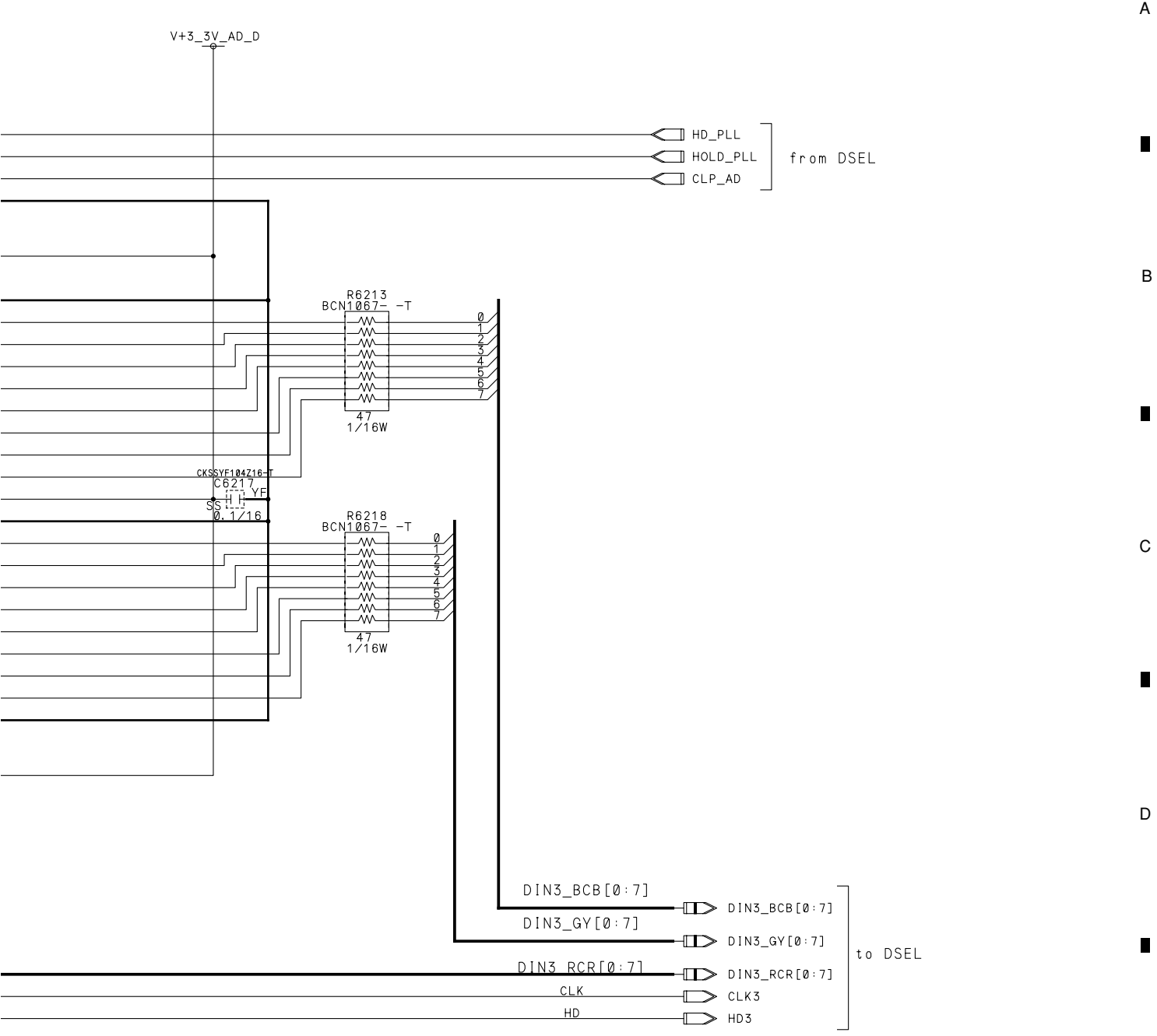
3.25 MR MAIN ASSY (10/16)

MR MAIN ASSY (10/16)

• ADC BLOCK

NO USE : STANDBY





ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	6201-6228	6213-6214, 6219-6221, 6226,	6213-6214, 6219-6221, 6226,
F	6201-6204	6202-6203,	6202-6203,
IC	6201-6201		
R	6201-6223	6204-6212, 6214-6217, 6219,	6204-6212, 6214-6217, 6219,

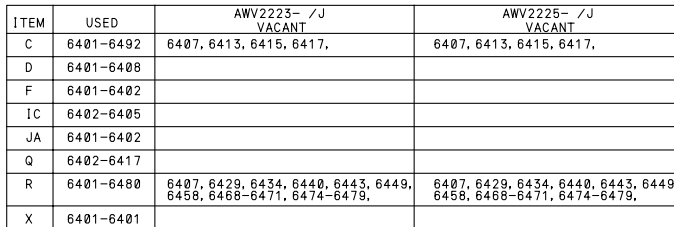
△

A

NO USE



F



△



ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	6601-6603	6606, 6611, 6618, 6628, 6624, 6628,	6606, 6611, 6618, 6628, 6624, 6628,
F	6601-6603		
IC	6601-6602		
R	6601-6643	6608-6610, 6612, 6615-6617, 6619, 6621, 6624, 6626-6627, 6630, 6632-6633, 6638-6640,	6608-6610, 6612, 6615-6617, 6619, 6621, 6624, 6626-6627, 6630, 6632-6633, 6638-6640,
X	6601-6601		

A

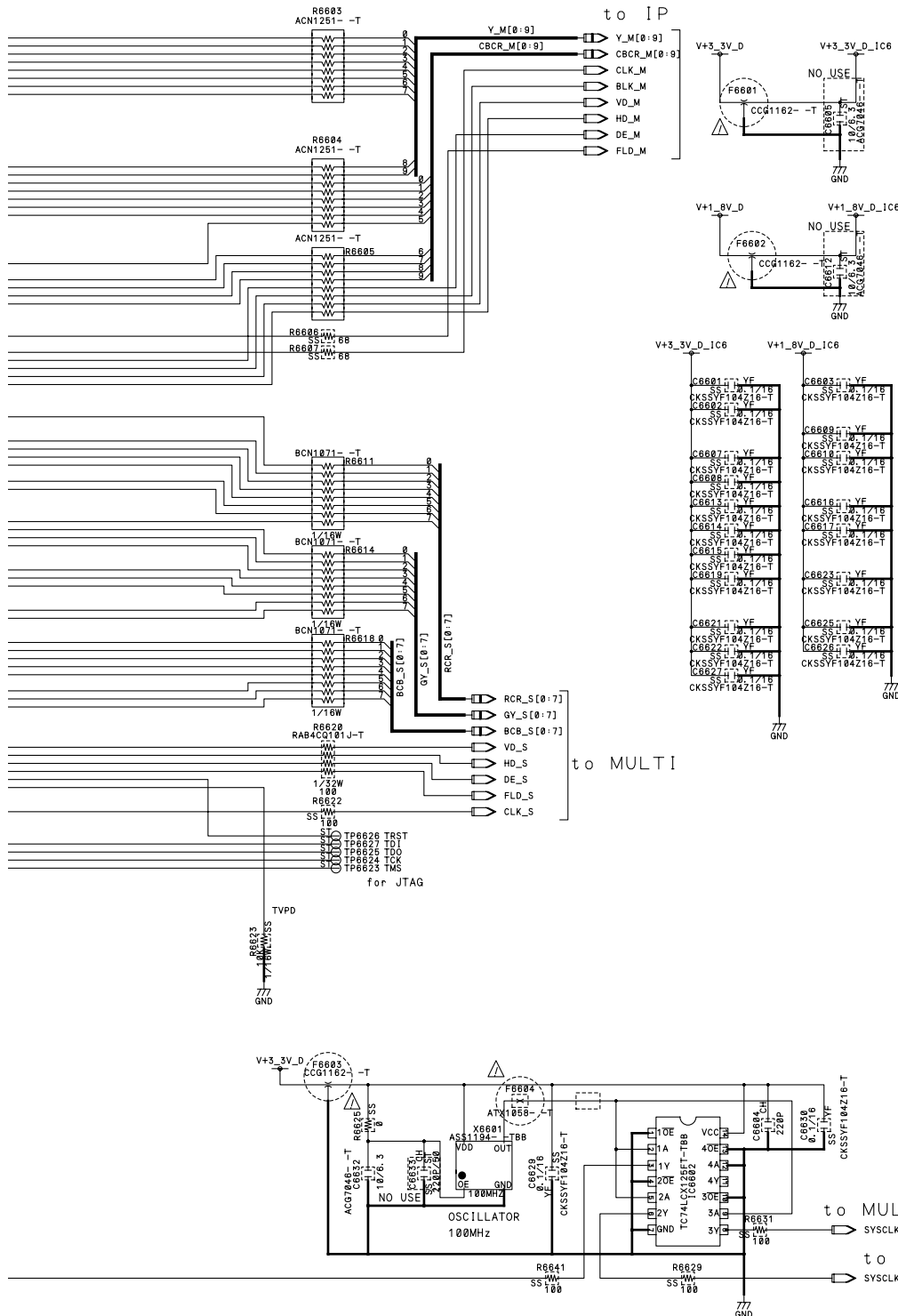
B

C

D

E

F



4

A

B



D

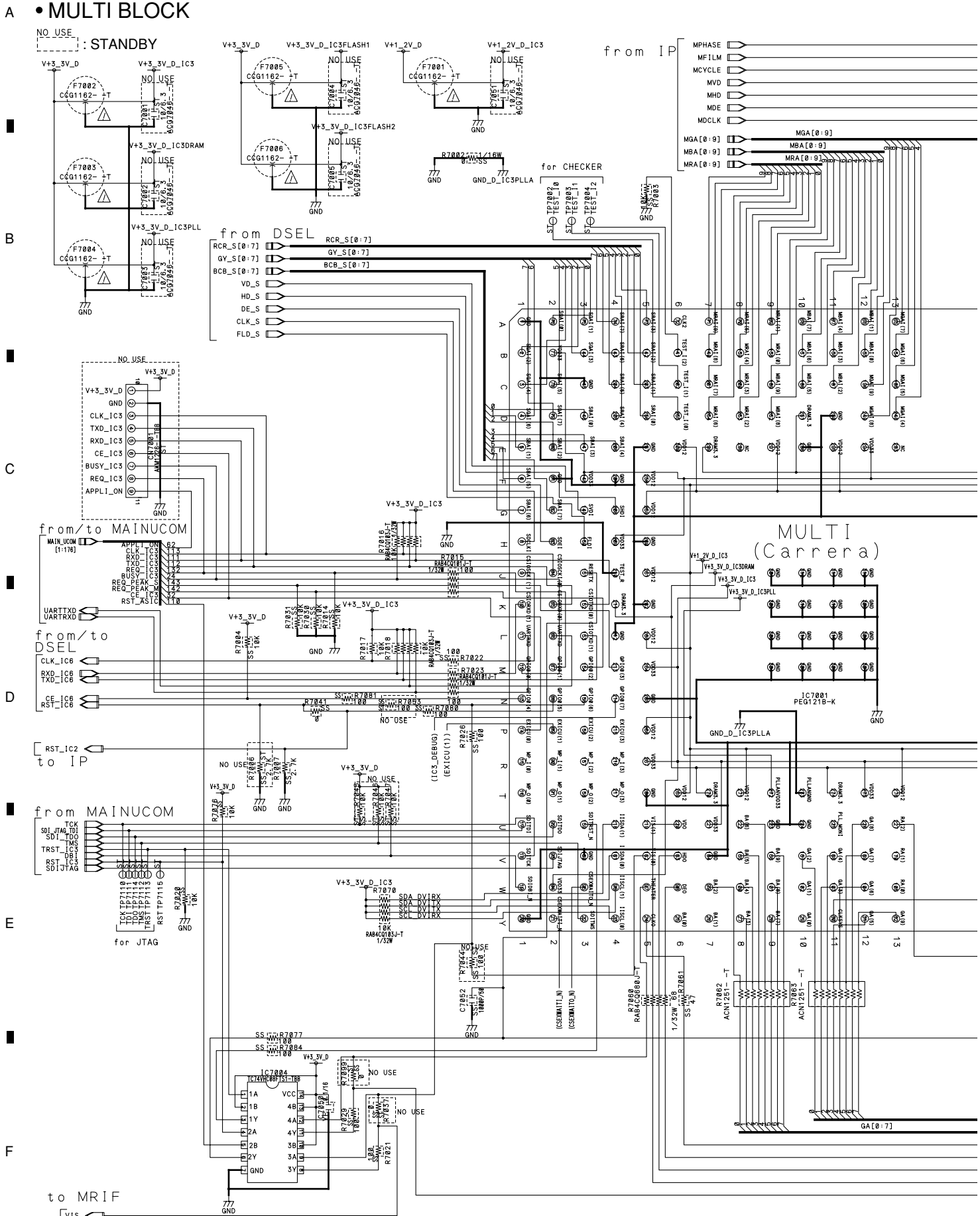
E

F

3.29 MR MAIN ASSY (14/16)

MR MAIN ASSY (14/16)

• MULTI BLOCK



A

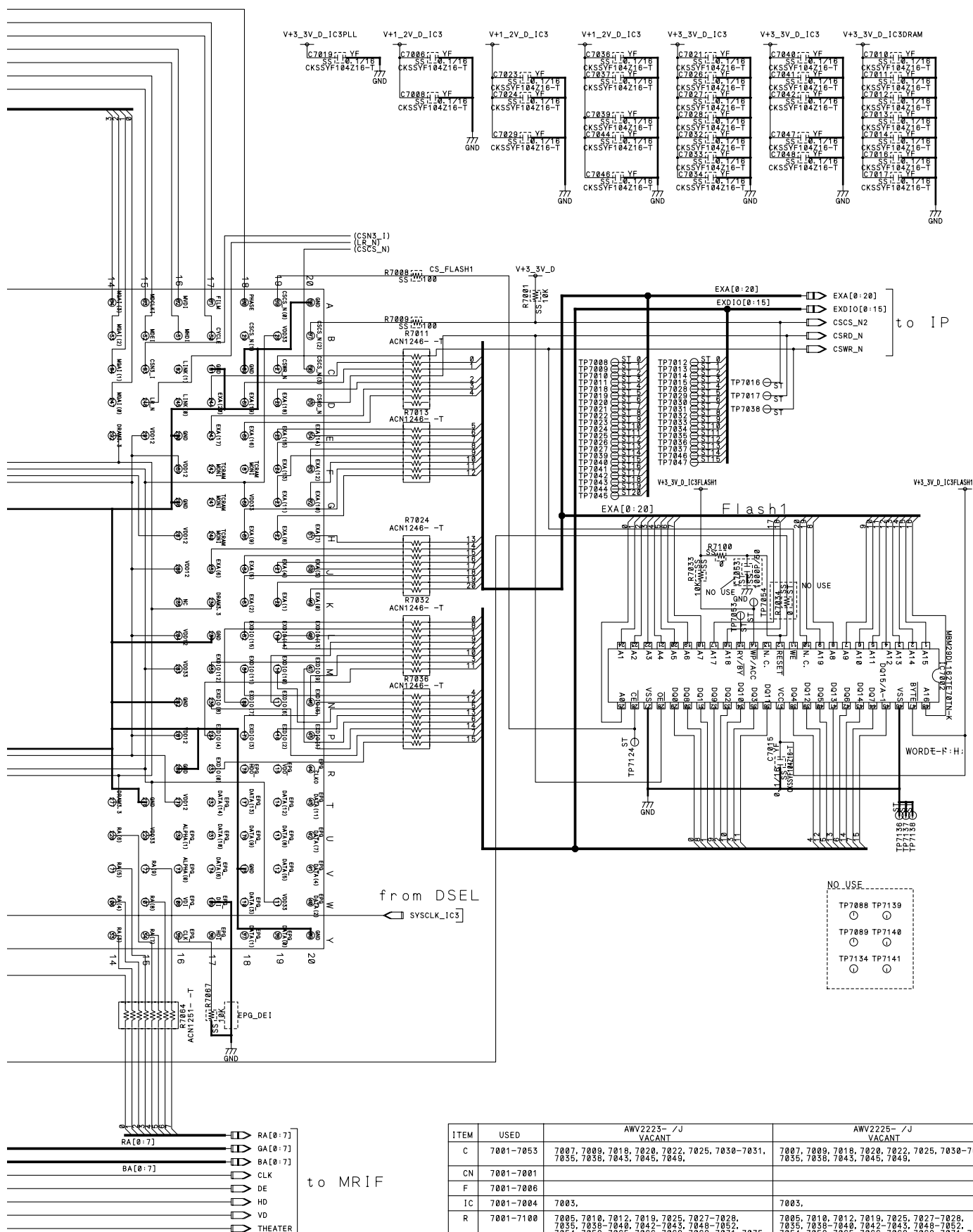
B

C

D

E

F



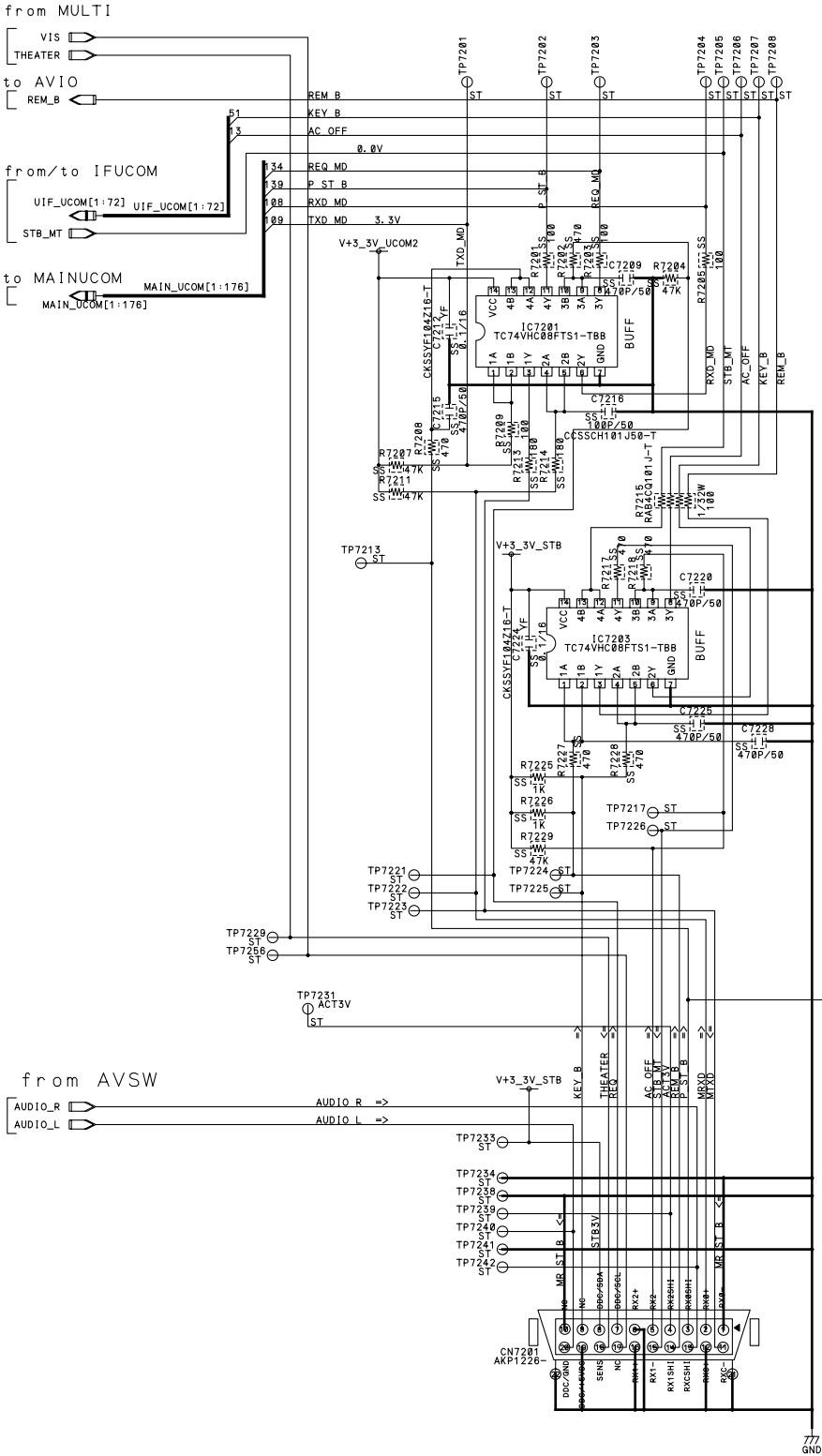
1 2 3 4

3.30 MR MAIN ASSY (15/16)

MR MAIN ASSY (15/16)

•MR IF BLOCK

NO USE : STANDBY

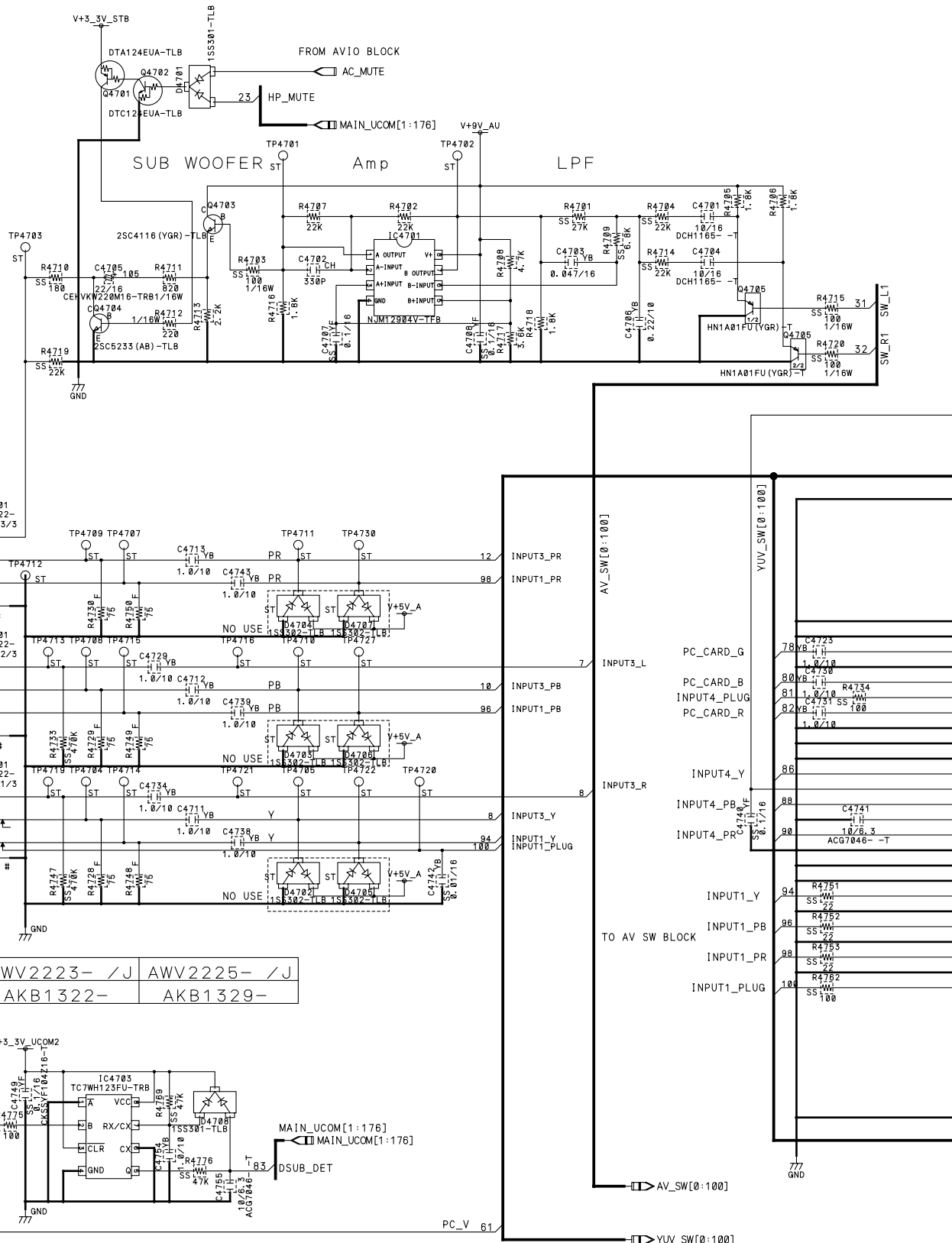


3.31 MR MAIN ASSY (16/16)

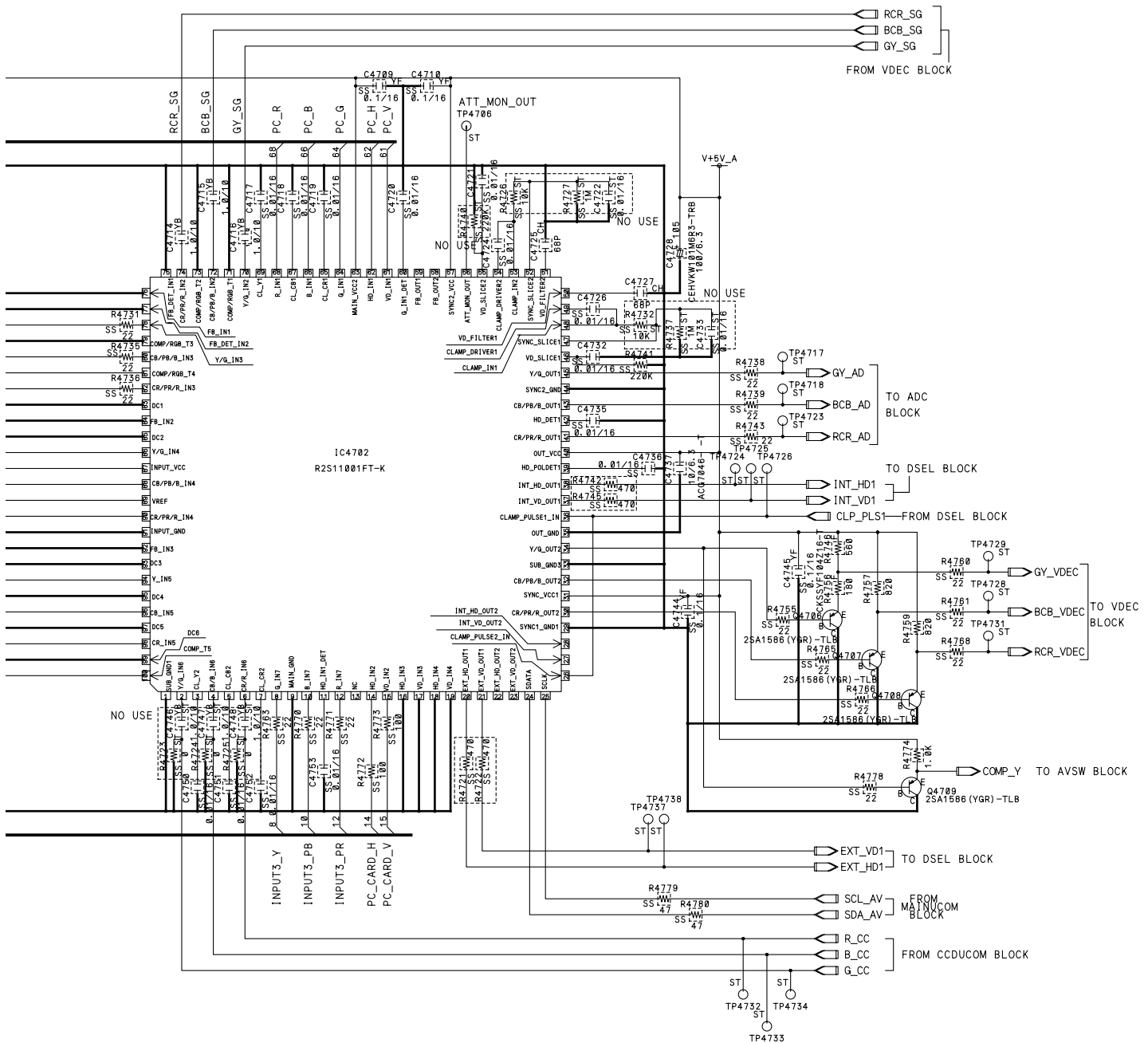
MR MAIN ASSY (16/16)

• RGB SW BLOCK

NO USE : STANDBY



ITEM	USED	AWV2223- /J VACANT	AWV2225- /J VACANT
C	4701-4755		
D	4701-4708		
IC	4701-4703		
JA	4701-4701		
Q	4701-4709		
R	4701-4780	4744, 4754, 4758, 4764, 4767, 4777,	4744, 4754, 4758, 4764, 4767, 4777,



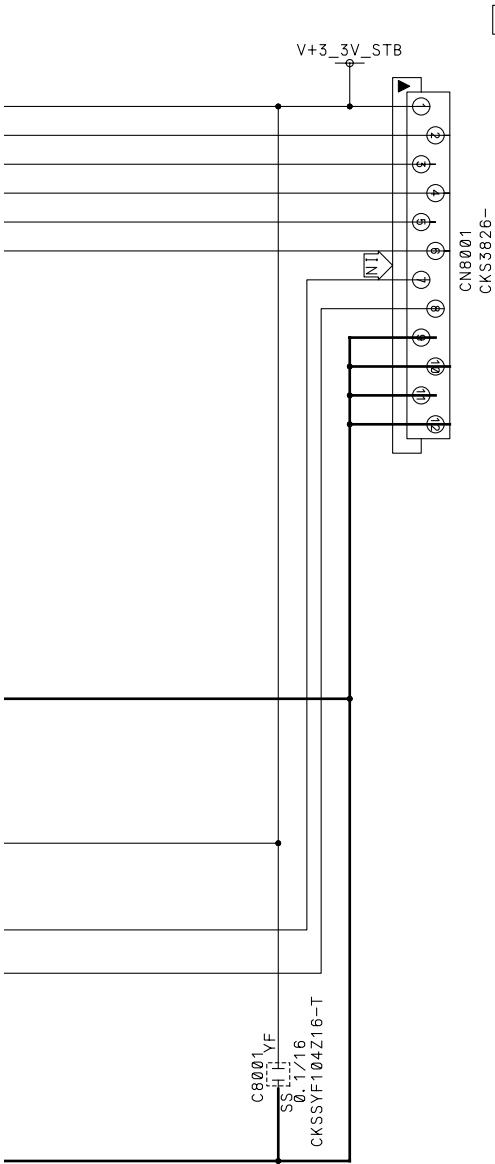
△

A



[V]

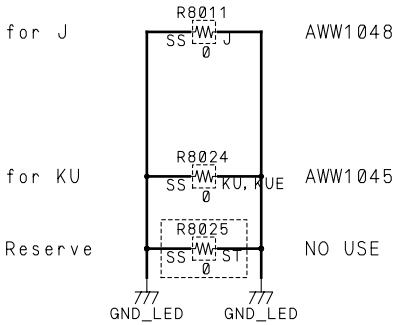
[V]



L1
TO FRONT Ass'y

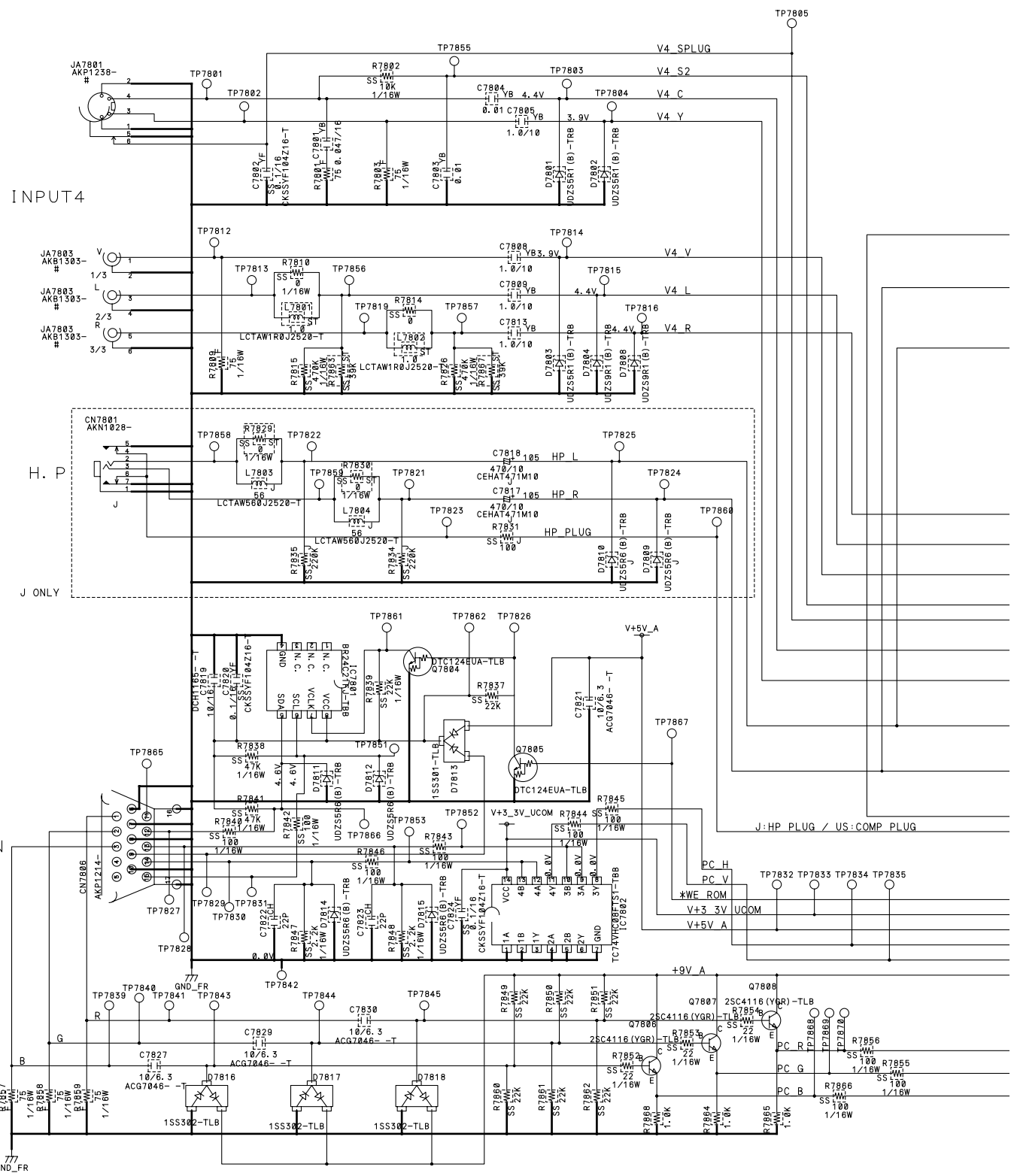
- 1. V+3_3V_STB
- 2. LED_ON
- 3. LED_OFF
- 4. LED_MDM
- 5. V+5_1V_STB
- 6. LED_REC
- 7. KEY_AD1
- 8. KEY_AD2
- 9. GND
- 10. GND
- 11. GND
- 12. GND

		MODEL	PRO-R06U/KUCXJ PDP-R06U/KUCXJ	PDP-R06/JJ
ITEM	USED		AWV2224- (KUE) AWV2226- (KU) VACANT	AWV2228- (J) VACANT
R	0001, 0004-0006, 0011 0017-0025		0004, 0011, 0025	0023, 0024, 0025
C	0001, 0005-0007			
D	0001-0004		0002	
Q	0002-0004, 0007		0007	
CN	0001			
S	0001-0007			0007



3.33 FRONT ASSY

FRONT ASSY



	J		
	AKB1303-	AKB1303-	AKB1304-
JA7803	AKB1303-	AKB1303-	AKB1304-
JA7801	AKP1238-	AKP1238-	AKP1239-
JA7805	Vacant	AKB1305-	AKB1306-
CN7801	AKN1028-	Vacant	Vacant

ITEM	USED	MODEL	PRO-R06U/KUCXJ	PDP-R06U/KUCXJ	PDP-R06/JJ
		AWV2224- (KUE) VACANT	AWV2226- (KU) VACANT	AWV2228- (J) VACANT	
R	7801-7803, 7804, 7805, 7807-7808	7803-7805, 7806, 7808, 7805, 7807, 7810	7803-7805, 7806, 7808, 7805, 7807, 7810	7804-7806, 7811-7813, 7810-7826, 7828-7834, 7805, 7807	
C	7801-7805, 7806, 7808, 7810, 7811, 7824, 7825, 7829-7832, 7834, 7835, 7838-7840	7812, 7818	7812, 7818	7804-7806, 7811-7813, 7810-7826, 7828-7834, 7805, 7807	
D	7801-7805	7806, 7810	7806, 7810	7806-7807	
Q	7801-7805			7801-7803	
JA	7801, 7803-7805			7805	
CN	7801, 7803-7805	7801, 7805	7801, 7805	7805	
IC	7801, 7802				
L	7801-7804	7801-7804	7801-7804	7801, 7802	

PDP-R06U



4

A





4

A

B



D

E

F

SIDE A

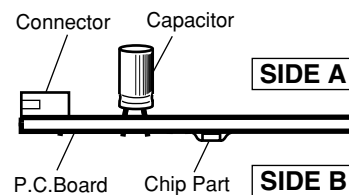
A

NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



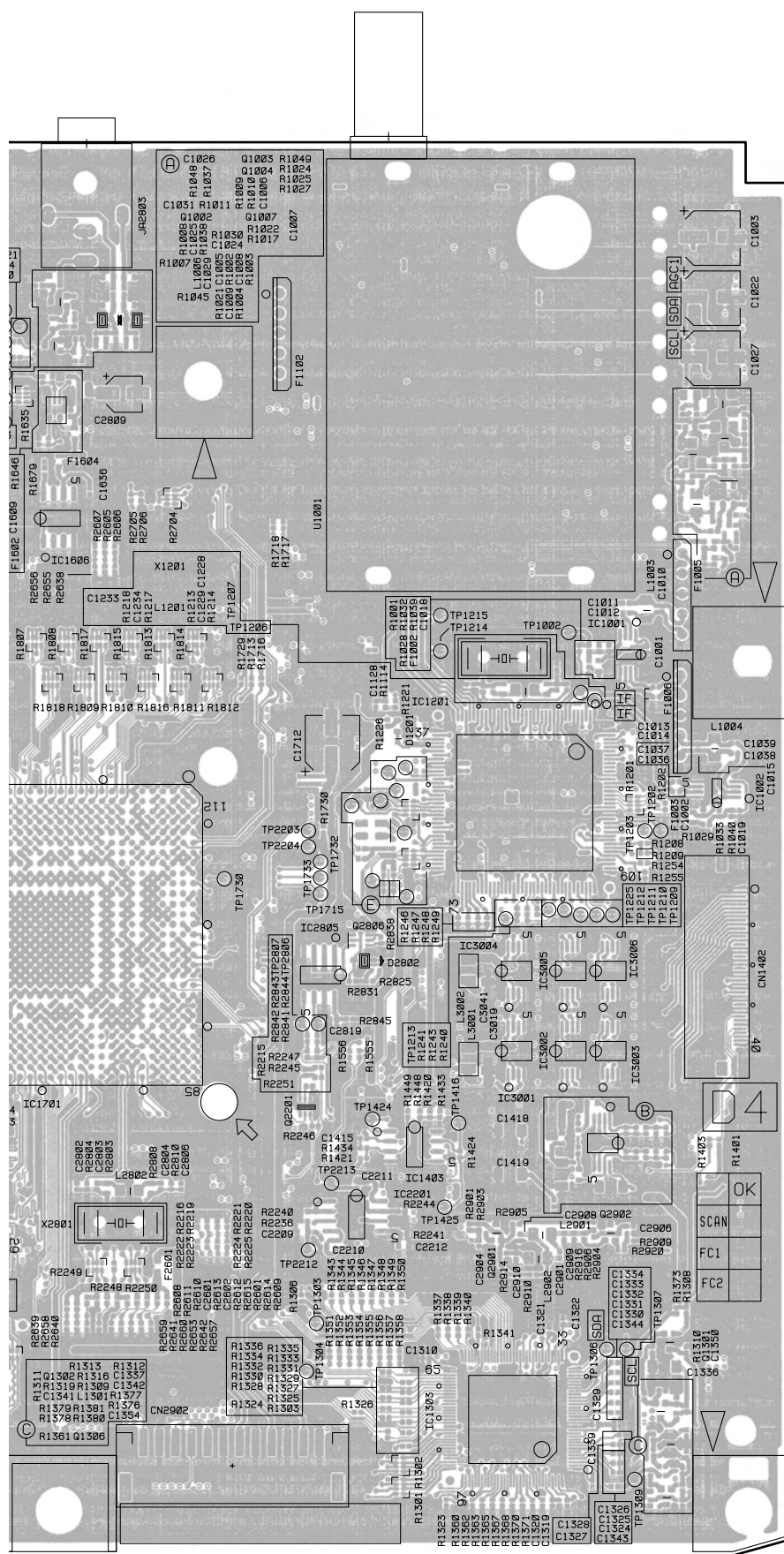
B

C

D

E

F



A

SIDE B

B

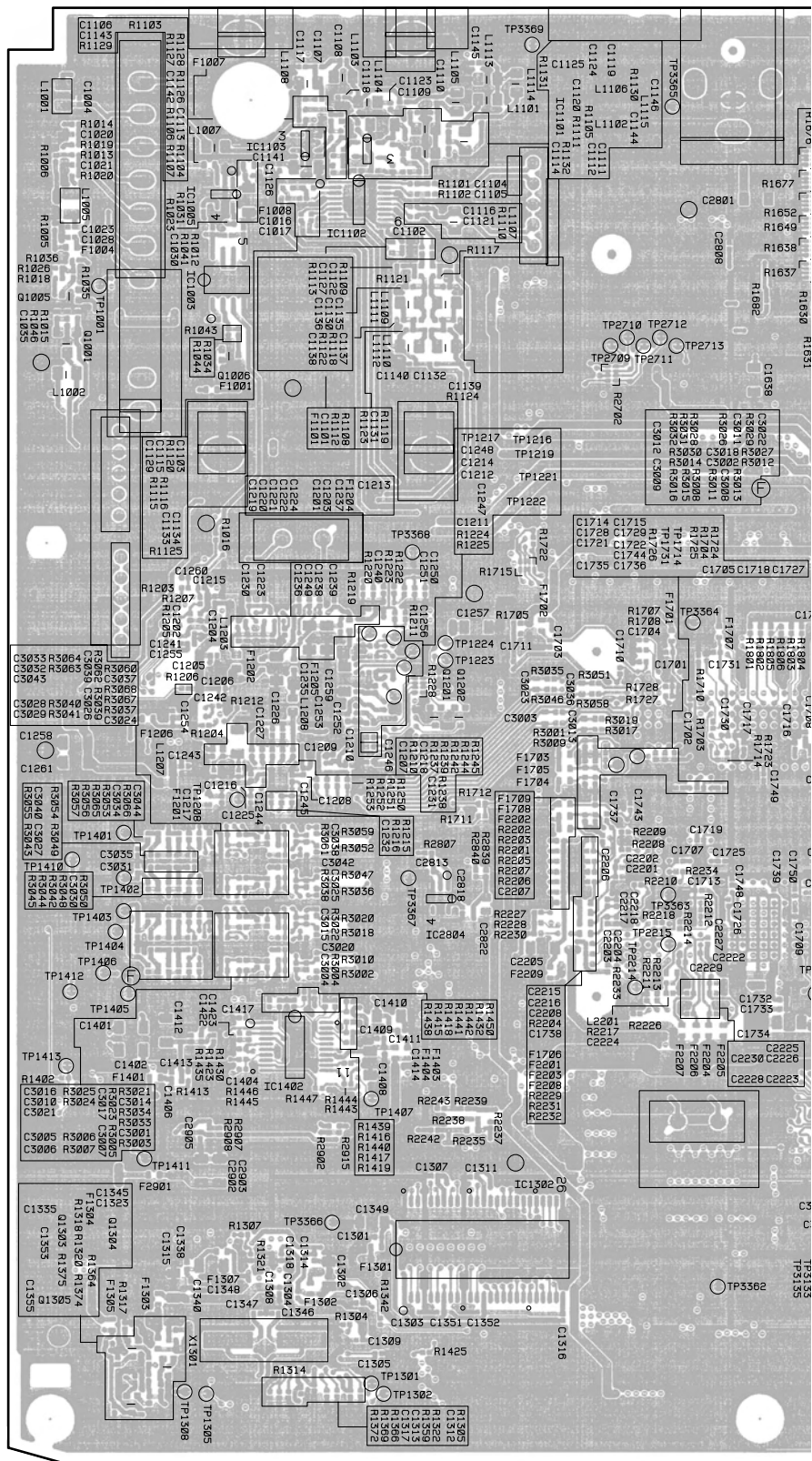
C

D

E

F

MR DTB ASSY



A

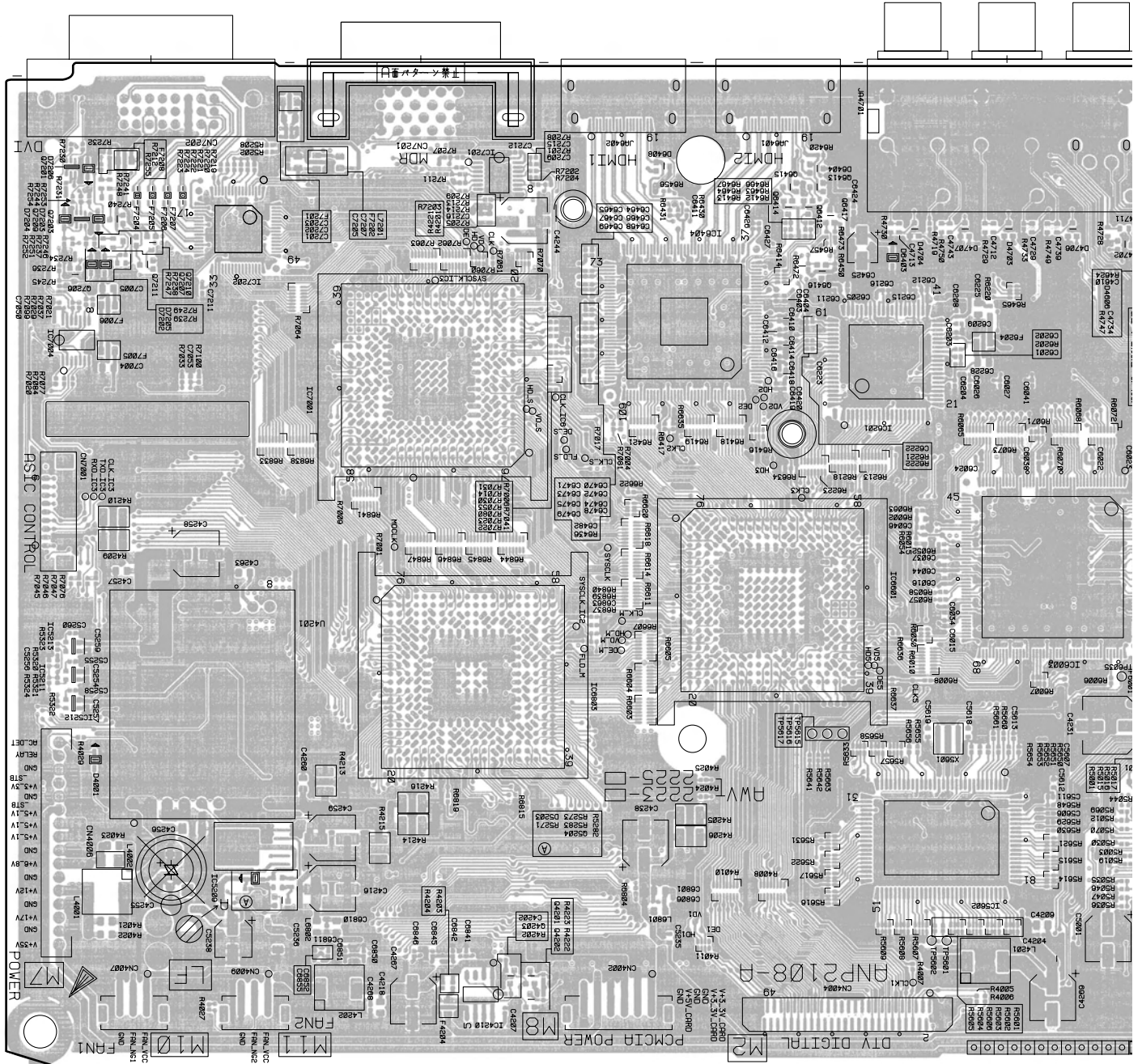


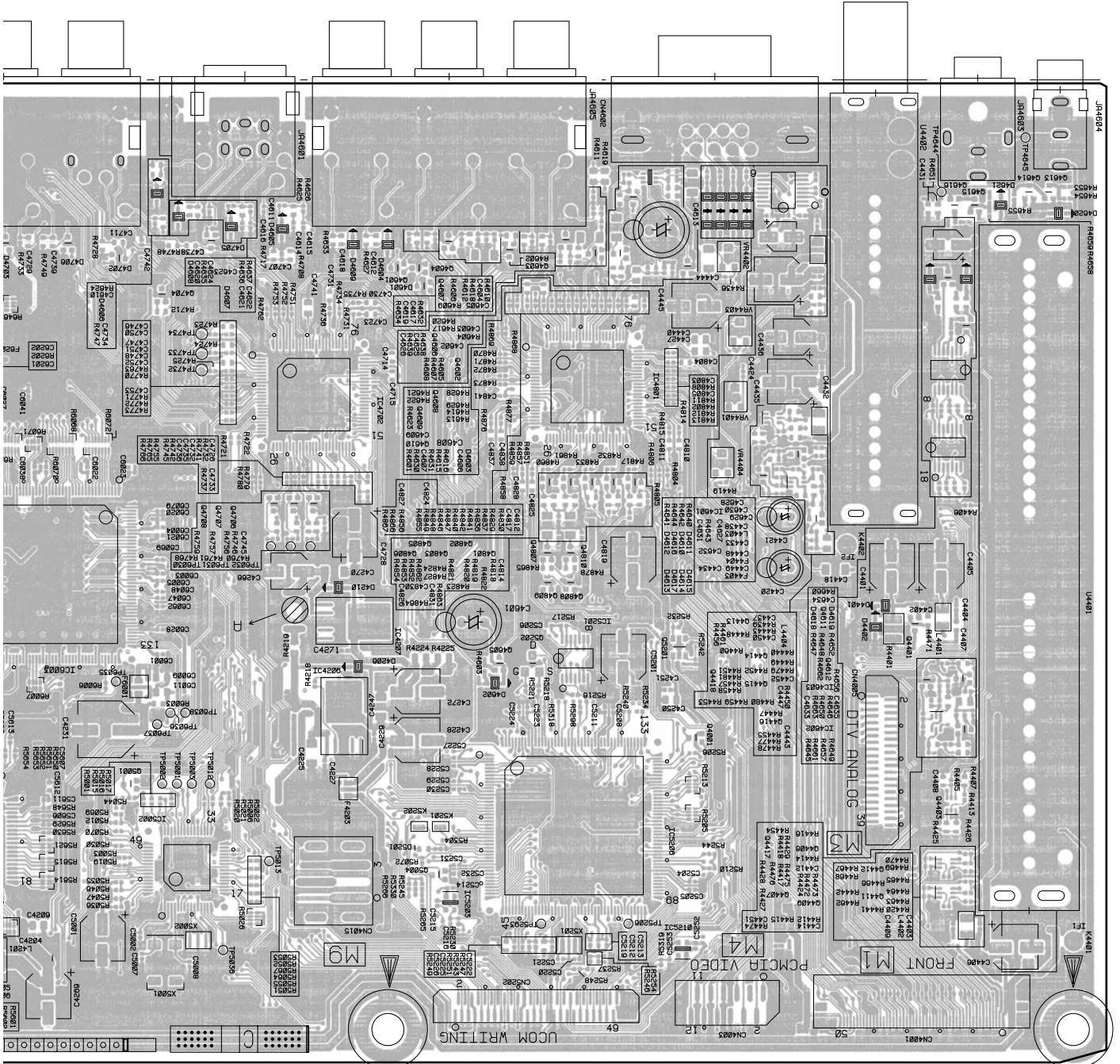
77

4.2 MR MAIN ASSY

SIDE A

MR MAIN ASSY





(ANP2108-A)

A

MR MAIN ASSY

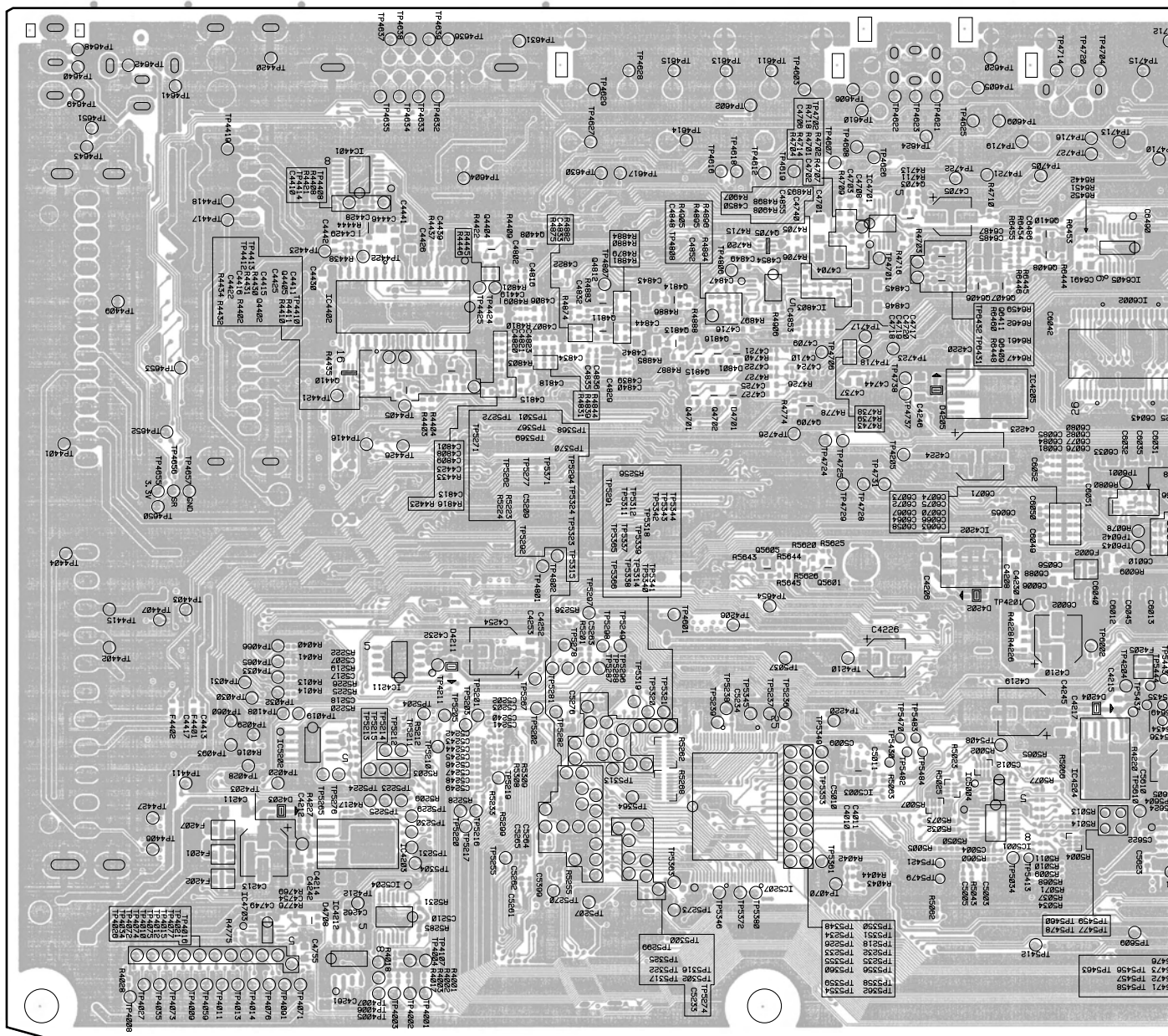
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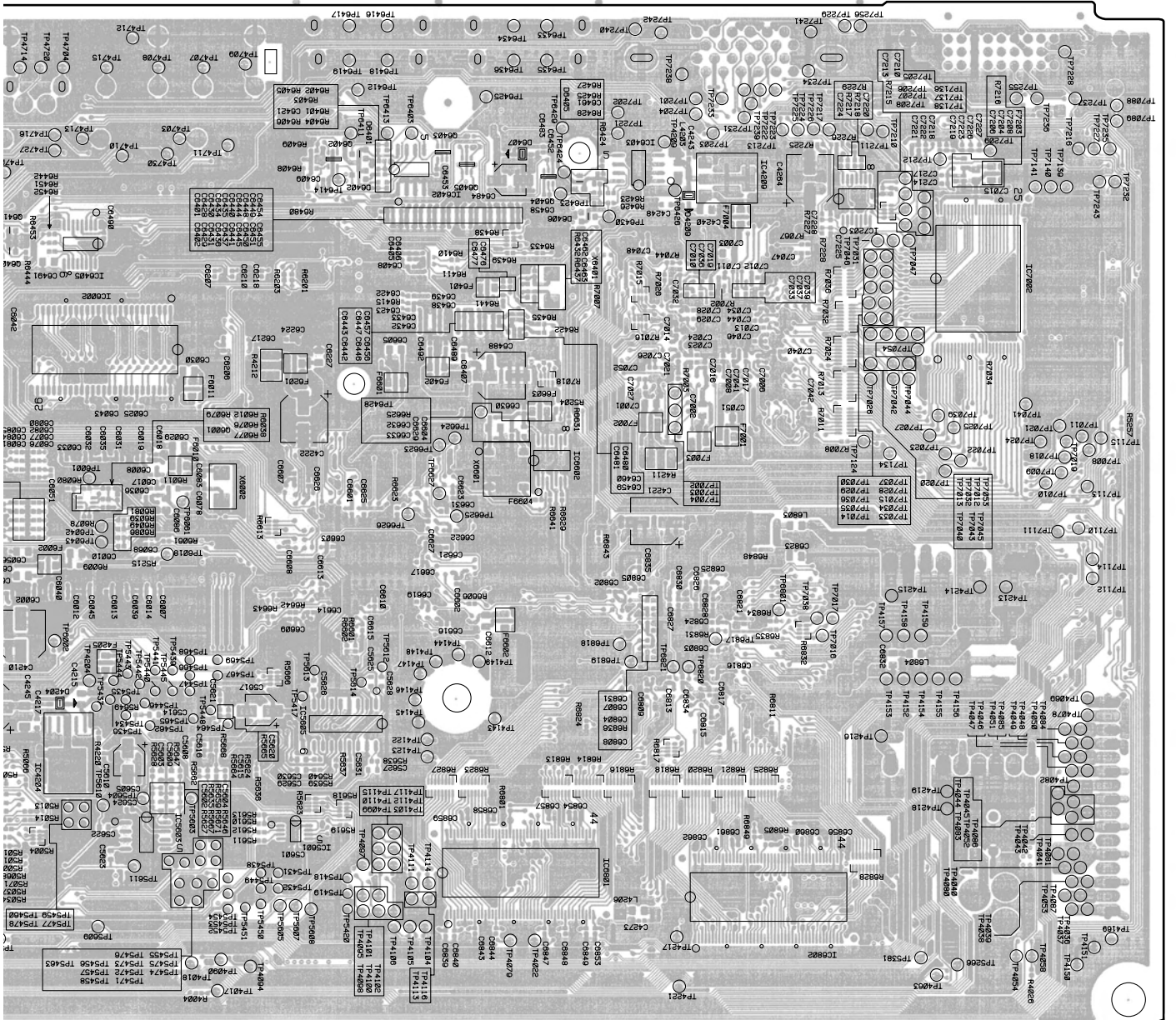
C

D

E

F



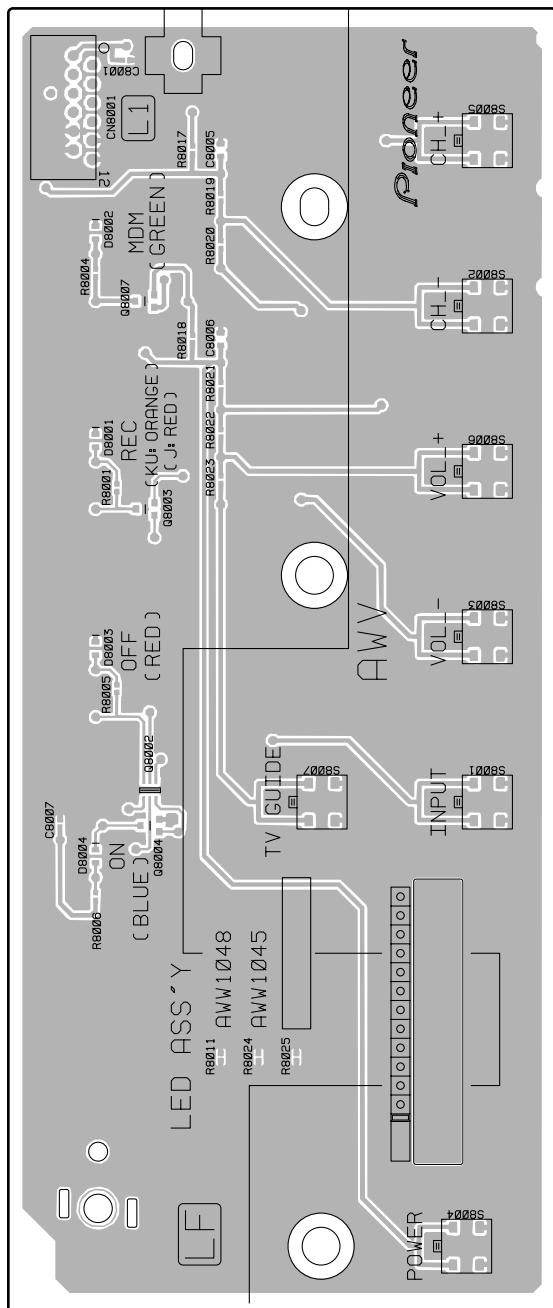


(ANP2108-A)

4

SIDE A

LED ASSY



(ANP2109-A)

